CLASS 600, SURGERY

SUBCLASSES

1 RADIOACTIVE SUBSTANCE APPLIED TO BODY FOR THERAPY:
This subclass is indented under the class definition. Subject matter for the application of radiation emitted by radioactivity, including alpha particles, gamma rays, nucleus and electrons, from a radioactive substance to or within the body for therapeutic purposes.

SEE OR SEARCH CLASS:
250, Radiant Energy, subclass 493.1 for radioactive source generally.
252, Compositions, subclasses 625+ for radioactive compositions in general.
423, Chemistry of Inorganic Compounds, subclasses 2+ and 249+ for processes of preparing radioactive compounds by a chemical reaction.
424, Drug, Bio-Affecting and Body Treating Compositions, particularly subclasses 1.11+ for radionuclide containing subject matter, for: compositions (A) for preventing, alleviating, treating, or curing abnormal and pathological conditions of the living body, for maintaining, increasing, decreasing, limiting, or destroying a physiologic body function, for diagnosing a physiological condition or state by an in vivo test, for controlling or protecting an environment or living body by attracting, disabling, inhibiting, killing, modifying, repelling, or retarding an animal or micro-organism, (B) for deodorizing, protecting, adorning, or grooming a body, (C) for fermentates and extracts for use in A or B and not elsewhere provided for, and (D) such compositions defined in terms of specific structure; methods of making the above compositions; nominal methods of using the class defined compositions for purposes in A and B; and methods of using compounds, per se, for purposes in A and B. Class 600 provides for manipulative methods of using the Class 424 defined compositions for purposes in A and B. See the Class Definitions in Class 424 for the line between Class 128 (and its subsidiary classes) and Class 424.

2 Combined with other radiant or wave energy source (e.g., electromagnetic, thermal, microwave etc.):
This subclass is indented under subclass 1. Subject matter wherein the radioactive substance is associated with another radiant energy source such as electromagnetic, thermal, microwave or other wave energy source to provide dual or synergistic treatment to or within the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
9+, for magnetic fluid applied to body.

3 Radioactive substance placed within body (e.g., inhaled, implanted, injected, etc.):
This subclass is indented under subclass 1. Subject matter wherein the radioactive substance is introduced directly within the body or in a natural body orifice.

(1) Note. The radioactive substance can be introduced into the body by various techniques and devices. These can include inhaling the radioactive substance in a gaseous form, surgically implanting the radioactive substance at a specific location, injecting the substance either in solid or fluid form through a needle, or by inserting the substance into a natural body orifice.

SEE OR SEARCH CLASS:
128, Surgery, subclasses 203.12+ for breathing devices for breathing gases carrying medicinal substances.

4 By fluid injection of radioactive or enhancing agent through body piercing conduit:
This subclass is indented under subclass 3. Subject matter wherein a fluid radioactive or enhancing agent is introduced into the body either intravascularly or intramuscularly through an injector having a body piercing hollow needle or conduit attached thereto.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 93.01+ and 506+ for medicinal procedures and infectors in general.

5 Fluid reservoir shielding (e.g., syringe):
This subclass is indented under subclass 4. Subject matter wherein the injector is provided with a protective sheathing to safeguard against leakage or degradation of the radioactive contents thereof.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 187+ for manual injector structure in general.

6 Utero-vaginal or pelvic application:
This subclass is indented under subclass 3. Subject matter wherein the radioactive substance is placed within the pelvic cavity, particularly within the Utero-Vaginal tract contained therein, for treatment thereof.

SEE OR SEARCH CLASS:
604, Surgery, subclass 515 for methods of introducing other therapeutic materials into the female reproductory tract.

7 Injectors/holders for seeds or implants (e.g., capsules):
This subclass is indented under subclass 3. Subject matter wherein a solid or a capsuled mass of radioactive material is inserted into the body, usually into a natural body orifice or subcutaneously by piercing the skin, by means of a utensil adapted to receive the solid or a hollow tubular conduit.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 57+ and 93.01+ for devices for inserting or injecting solid medicinal materials into the body.

8 Seeds:
This subclass is indented under subclass 7. Subject matter wherein the solid radioactive material inserted is in the form of a small capsule or a hollow radium containing device shaped like a needle.

(1) Note. Radioactive material in the form of small capsules or having a needle like shape are usually referred to as radium seeds in the art.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 57+ and 93.01 for solid implants and capsules other than radioactive containing.

9 MAGNETIC FIELD APPLIED TO BODY FOR THERAPY:
This subclass is indented under the class definition. Subject matter wherein an force field generated by a magnet is applied to the body for therapeutic purposes.

SEE OR SEARCH CLASS:
219, Electric Heating, subclasses 600+ for inductive heating, subclasses 678+ for microwave heating, and subclasses 764+ for capacitive dielectric heating.
335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 209+ for magnet and electromagnet structure.

10 Radio frequency wave induced magnetic field for subcutaneous hyperthermia:
This subclass is indented under subclass 9. Subject matter wherein electromagnetic waves having a determined radio wave frequency are utilized to generate the magnetic force field within body tissue which force field elevates the body temperature in the area being subjected to the magnetic field.

(1) Note. The degree of hyperthermia is controlled such that normal tissue is not affected by the rise in temperature but abnormal tissue such as tumors or malignancies are caused to necrose or deteriorate.

11 Probes:
This subclass is indented under subclass 9. Subject matter wherein the magnetic force field device is an elongated element specifically structured for removing embedded particles of magnetically attracted material from the body, usually from the eye.

SEE OR SEARCH CLASS:
606, Surgery, subclass 100, for devices adapted to remove objects from the pharynx or esophagus.

12 Magnetic element placed within body (e.g., injected, inserted, implanted, etc.):
This subclass is indented under subclass 9. Subject matter wherein the magnet for therapeutic treatment is placed within the body either (a) by insertion into a natural body orifice, (b) by injection into the body by a hollow piercing conduit, or (c) by surgical implantation.

SEE OR SEARCH CLASS:
606, Surgery, subclass 106 for devices adapted to remove objects from the throat or connected passageways.

13 Electromagnetic coil:
This subclass is indented under subclass 9. Subject matter wherein a device consisting of an iron or steel core is surrounded by a wound wire spiral of an indefinite number of turns through which electricity passes to generate the magnetic field in said iron or steel core.

14 Pulsating field:
This subclass is indented under subclass 13. Subject matter wherein the electric current generating the magnetic field is given a transient amplification or intensification followed by a return to a state of equilibrium upon the electric current is again given a transient amplification.

15 Externally supported or worn (e.g., garment, belt, etc.):
This subclass is indented under subclass 9. Subject matter wherein the magnetic force field is applied to the body by a means attached to the outer surface of the body.

(1) Note. These implements are usually belt-like or garment-like in form.

16 CARDIAC AUGMENTATION (PULSATORS, ETC.):
This subclass is indented under the class definition. Subject matter , having permanent or temporary mechanical means attached to the body for assisting the action of an ailing or weakened heart which cannot perform adequately to circulate blood through the body's vascular systems.

(1) Note. These devices do not replace the heart, per se, rather they only augment the heart's pumping action. The assistance can be continuous or intermittent and can be synchronized with the regular heartbeat.

17 With condition responsive means:
This subclass is indented under subclass 16. Subject matter wherein the means for varying the rate or amount of assist to the heart has a detector means which senses a change in some variable in a person and in response to said change controls the rate or amount of assisting action to the heart.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 65 through 67 and 503 which are conditional responsive to vary treatment flow into and out of the body.

18 Aortic balloon pumping:
This subclass is indented under subclass 16. Subject matter wherein the augmentation means is a tubular means having a bore or lumen extending therethrough, which bore or lumen contains an inflatable means, said tubular means being inserted intra-arterially to a position near the heart and thereafter inflated and deflated rhymically to augment the heart's pumping action.

19 ANTIGRAVITATIONAL SYSTEMS:
This subclass is indented under the class definition. Subject matter including means adapted to protect air craft occupants (e.g., pilots, astronauts etc.) from excessive accelerational and centrifugal forces generated by force of gravity during flight maneuvers which could cause loss of consciousness, e.g., “blackout”, due to sudden change in the blood supply to the occupants' brain.

20 Body suits:
This subclass is indented under subclass 19. Subject matter wherein the means adapted to protect the occupants includes a pressurized garment which substantially encloses all or a portion or the body of the occupant.

SEE OR SEARCH CLASS:
128, Surgery, subclass 202.12 for chambers having a supply of pressurized oxygen.

21 INSOLATION TREATMENT CHAMBERS:

This subclass is indented under the class definition. Subject matter wherein an enclosure means to contain a human or animal body, or a portion thereof, for the purpose of (a) quarantining a patient, (b) maintaining sterile conditions around a patient during operative surgery or (c) preventing spread of contamination into or out of the enclosure container.

(1) Note. these structures can take the form of large static room-like building structures or small flexible walled tent-like enclosures.

SEE OR SEARCH CLASS:

128, Surgery, subclass 202.12 for hypobaric chambers.

312, Supports: Cabinet Structure, subclass 1 for glove-box chambers.

22 Incubators:

This subclass is indented under subclass 21. Subject matter wherein the enclosures is specifically designed to maintain a premature infant in an environment of controlled temperature, oxygen and humidity.

23 SPEECH CORRECTION/THERAPY (E.G., ANTISTAMMERING):

This subclass is indented under the class definition. Subject matter having devices and systems for treating verbal communication deficiencies such as stuttering, nasal emission and other impediments to one's speech.

(1) Note. This subclass also includes methods for monitoring and techniques for treating the speech defects.

24 Oral cavity devices:

This subclass is indented under subclass 23. Subject matter wherein the device is designed to fit within the mouth of a user for preventing speech defects, such as stammering.

SEE OR SEARCH CLASS:

128, Surgery, subclasses 848 and 859+ for devices placed in the mouth for preventing snoring and for protecting the mouth.

25 SURGICALLY IMPLANTED VIBRATORY HEARING AID:

This subclass is indented under the class definition. Subject matter wherein a small ambient sound reproducing system having a vibratory output is placed inside the body.

SEE OR SEARCH CLASS:

73, Measuring and Testing, subclass 585 for ear or hearing testing, and subclasses 645+ for measuring acoustic parameters.

181, Acoustics, subclasses 126+ for mechanical hearing aids.

330, Amplifiers, appropriate subclasses, particularly subclasses 65+ for amplifiers involving structural details or elements, and transistor amplifiers.

381, Electrical Audio Signal Processing Systems and Devices, subclasses 23.1 and 312+ for hearing aids in general, and subclass 60 for testing hearing aids.

623, Prosthesis, (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor, subclass 24 for an artificial ear having an electrical hearing aid as a subcombination.

607, Surgery: Light, Thermal, and Electrical Application, subclasses 46+ for surgically implanted hearing aids which apply electrical energy to the body.

26 SLEEP OR RELAXATION INDUCING (E.G., DIRECT NERVE STIMULATION, HYPNOSIS, ANALGESIA):

This subclass is indented under the class definition. Subject matter including devices, systems and techniques for influencing or causing a natural state of rest (e.g., sleep), characterized by relative physical and nervous inactivity, unconsciousness, and lessened response to physical stimuli upon a subject body or to put the body at ease or in a state of tranquility.

(1) Note. Included also herein are sensory devices for producing hypnosis or a feeling of well being; e.g., tranquility, in a patient. These devices can be applied directly to the nervous system as by electrical stimulation, or can be designed to stimulate the body's own sensory system

of visual, audio, taste, smell and tactile senses to accomplish a conscious relaxing or hypnotic effect in a patient. The sense of well being or reduced awareness produced by the devices and techniques herein can be utilized as an analgesic during a surgical procedure.

(2) Note. Drug induced sleep or relaxation therapy is not included in this subclass or its indented subclasses.

SEE OR SEARCH CLASS:
604, Surgery, subclass 512 for methods of anesthetizing patients.
607, Surgery: Light, Thermal, and Electrical Application, subclasses 2+ and 55+ for direct electrical application to the body for treatment of pain.

27 Sensory (e.g., visual, audio, tactile, etc.):
This subclass is indented under subclass 26. Subject matter wherein the state of tranquility is produced upon the body by devices and techniques applied to or stimulating the body's senses of hearing, sight, smell, taste or touch.

(1) Note. These systems can include blinking or colored lights, rotating spirals, background noise, and percussive touch devices.

28 Audio (e.g., heartbeat, "white noise", etc.):
This subclass is indented under subclass 27. Subject matter wherein the sensory stimulation produces effects only on the sense of hearing.

(1) Note. This subclass can include heartbeat sounds to provide security and well being for infants or so called "white noise" used for analgesic purposes as in dental drilling.

29 BODY INSERTED URINARY OR COLONIC INCONTINENT DEVICE OR TREATMENT (E.G., ARTIFICIAL SPHINCTERS, ETC.):
This subclass is indented under the class definition. Subject matter including devices entirely inserted or surgically implanted within the body for controlling the lack of urinary or bowel restraint.

(1) Note. Methods of placing these devices within the body are included herein. These devices are commonly referred to as "artificial sphincters", which are installed within the body to aid or replace the body's natural sphincter.

SEE OR SEARCH CLASS:
128, Surgery, subclasses 885+, for incontinent restrainers that are external of the body.

30 Implanted:
This subclass is indented under subclass 29. Subject matter wherein the incontinent device is surgically placed within the body to aid or replace a natural ringlike muscle, e.g., sphincter, normally maintains constriction of a body passage or orifice.

31 With fluid actuated occluding means (e.g., inflatable cuff):
This subclass is indented under subclass 30. Subject matter wherein the implanted device is provided with a means which is inflated by air or a liquid for closing off or occluding a body waste duct.

(1) Note. This generally consists of an inflatable cuff which surrounds or presses against the body duct when inflated to occlude the duct thereby preventing undesirable leakage or drip therefrom. The system for inflating and deflating the cuff also included.

32 Stoma closures (e.g., colostomy plugs):
This subclass is indented under subclass 29. Subject matter wherein the body inserted device is a closure member usually a sealing plug or expandable member that is sized to fit within a natural or surgically constructed body waste orifice to prevent leakage of body waste therefrom or infection therein.

SEE OR SEARCH CLASS:
128, Surgery, subclass 887, for nonabsorbent body opening occludes for different purposes.
604, Surgery, subclass 337, for means for covering stoma or body openings of colostomy apparatus.

33 REPRODUCTION AND FERTILIZATION TECHNIQUES:
This subclass is indented under the class definition. Subject matter wherein means are employed to aid in the impregnating, conceiving and biological propagation of humans and animals.

(1) Note. The subject matter herein is concerned with both increasing the fecundity of human and animals with normal reproductory capability as well as aiding conception and full term pregnancies in those individuals whose reproductive organs are incapable of conceiving or reproducing. This subclass also includes devices and techniques that perform an auxiliary function or intermediate step in the overall process of reproduction and fertilization.

34 Embryo transplantation:
This subclass is indented under subclass 33. Subject matter wherein a fertilized egg or oocyte from one female's reproductory tract is transferred to a different female's uterus for the purpose of fertilization or embryonation thereof.

(1) Note. This includes apparatus and methods for accomplishing the transfer.

35 Artificial insemination:
This subclass is indented under subclass 33. Subject matter wherein fertilization is accomplished either (1) in vivo by injecting donor semen by mechanical means into a recipient female's reproductory tract or, (2) in vitro by mixing donor semen and a recipient ova in a small container outside the body and subsequently inserting the fertilized ova into a recipient female's reproductory tract.

36 BLOOD VESSEL OR GRAFT PREPARATION:
This subclass is indented under the class definition. Subject matter wherein vascular replacements; e.g., grafts, composed of either natural animal tissue or synthetic materials are made.

(1) Note. This subclass also includes the devices and methods used in preparing the graft or blood vessel.

SEE OR SEARCH CLASS:
623, Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor, appropriate subclasses for artificial blood vessels.

37 INTERNAL ORGAN SUPPORT OR SLING:
This subclass is indented under the class definition. Subject matter including means to isolate, suspend, hold, position or restrain an internal body organ during operative surgery or to correct a physical defect therein.

38 SEXUAL APPLIANCE:
This subclass is indented under the class definition. Subject matter which comprises means to substitute for or enhance the act of human copulation.

(1) Note. The term copulation, as used in this subclass and those subordinate hereto, is considered to be inclusive of any permutation of gender among participants.

(2) Note. The terminology copulation enhancement is considered to be inclusive of any device, appliance, or parapher-nalia which provides a sexual aid or a substitute genitalia means.

SEE OR SEARCH CLASS:
2, Apparel, for waterproof or inflatable garments.
70, Locks, for handcuffs and similar restraint devices.
119, Animal Husbandry, appropriate subclasses for sexual means for enhancing reproduction in animals.
231, Whips and Whip Apparatus, for whips, lashes, and electric prods.
482, Exercise Devices, subclasses 140, 141, and 148 for means to exercise various muscles of the body.
623, Prosthesis (i.e., Artificial Body Members), Parts Thereof, or Aids and Accessories Therefor, for devices which actually replace a body part.

39 Male splint:
This subclass is indented under subclass 38. Subject matter comprising a brace means which will position the male member of a user so as to resemble the size or usefulness of a natural erection.

(1) Note. This subclass contains various externally applied splints which permit a sexually impotent user to engage in sex.

40 Implanted:
This subclass is indented under subclass 39. Subject matter comprising brace means surgically placed within the user's male member to enhance the size or usefulness of an impotent member so as to resemble a natural erection.

(1) Note. This subclass contains various internally applied splints which permit a sexually impotent user to engage in sex.

(2) Note. An actuation means, either alone or in combination with an implantable splint, which is specially adapted for influencing the configuration or shape of an implanted implantable splint is proper for classification in this subclass.

41 Retention means:
This subclass is indented under subclass 38. Subject matter comprising a pressure applicator means placed in partial or complete encirclement at the base of a user's male member and sized or adjusted in such fashion that venous blood flow from the member is restricted while still permitting arterial blood flow to contribute to turgidity in the member.

(1) Note. This subclass contains devices which enable a user to maintain an erection for a greater period of time or to achieve a turgid state when otherwise unable.

SEE OR SEARCH THIS CLASS, SUBCLASS:
39, for a retention device in combination with a male member support.

101 ENDOSCOPE:
This subclass is indented under the class definition. Subject matter comprising a generally tube-like structure having a proximal operating end and a distal inserting end, means to transmit a view or image from the distal end to the proximal end, and a light source to transmit light from the proximal end to the distal end, wherein the distal end is inserted into a natural or surgically constructed body orifice for viewing or treating functional disorders of the body.

SEE OR SEARCH CLASS:
33, Geometrical Instruments, subclasses 544+ for measuring gauges for measuring a cavity or tube.
43, Fishing, Trapping, and Vermin Destroying, subclass 53.5 for fish gags
348, Television, subclass 45 for endoscopes having stereoscopic picture transmission devices used for medical inspection of the animal body and subclass 68 for optical systems which direct and control the intensity of a light source projected on an animal body.
356, Optics: Measuring and Testing, subclasses 241.1+ for similar endoscopic devices used to inspect bores on restricted openings in mechanical devices.
359, Optics: Systems (including communication) and Elements, various subclasses for similar endoscopic optical systems.
362, Illumination, subclasses 257+ for light sources and modifiers, and subclasses 572+ for light fibers, rods or pipes.
385, Optical Waveguides, subclasses 115+ for optical fiber bundles.
433, Dentistry, subclass 29 for means to facilitate viewing of work and radiation emission devices. Subclasses 30+ for mirrors combined with other devices. Subclass 93 for tongue guards, depressors, and cheek spreaders. Subclass 140 for cheek, jaw, lip, or tongue positioners.
601, Surgery: Kinestherapy, subclasses 2+ for ultrasonic devices applied to the body for therapeutic effect there on.

102 With chair, table, holder, or other support:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a surface for supporting the body in a sitting position or an article of furniture having a flat horizontal surface supported by legs or a retainer or other sustaining surface specifically adapted to retain the endoscope in an area in which it is being utilized or to hold the endoscope in a convenient location or orientation.

103 With monitoring of component or view field:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with means to signal or communicate to an operator specific functions or properties of the endoscope.

104 With tool carried on endoscope or auxiliary channel therefore:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided integrally with an instrument utilized in a surgical procedure within the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
153+, for endoscope having auxiliary channels with diverse functions.

105 Urogenital resectoscope:
This subclass is indented under subclass 104. Subject matter wherein the endoscope is particularly adapted to permit surgical removal of part of the body urological system in both male and female patients.

(1) Note. Surgical removal includes cutting, electrical heating, and laser means.

SEE OR SEARCH THIS CLASS, SUBCLASS:
104, for tools in particular.
108, for laser tools.
135, for urological endoscopes.

SEE OR SEARCH CLASS:
606, Surgery, subclass 46 for similar devices.

106 Having tool moving or stopping means:
This subclass is indented under subclass 104. Subject matter wherein active means are provided to move or retard the movement of the tool through the endoscope or a auxiliary channel carried thereon.

SEE OR SEARCH THIS CLASS, SUBCLASS:
153, for endoscopes having auxiliary channels for various functions and subclass 205 for specula having auxiliary channel structure.

107 Having tool raising platform:
This subclass is indented under subclass 106. Subject matter wherein the tool moving or stopping means is provided, at its distal end of the tube-like structure, with a member which changes the direction of movement of the tool to orient the tool at the precise location requiring treatment.

108 Laser:
This subclass is indented under subclass 104. Subject matter wherein the tool is a device which converts incident electromagnetic radiation of mixed frequencies to one or more discrete frequencies of highly amplified and coherent visible radiation.

109 With camera or solid state imager:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with photos:graphic or videos:graphic means such that whatever is seen through the viewing means of the endoscope is captured on film or transmitted to a video screen as an image.

SEE OR SEARCH THIS CLASS, SUBCLASS:
122, for camera handle protective sheath and subclass 181 for light intensity control mechanisms for imaging view.

110 Having signal wires:
This subclass is indented under subclass 109. Subject matter wherein significance is attributed to the placement or mechanical structure of cable means connecting the solid state imaging means at the distal end of the endoscope which coupled with a video signal processing

means transmits the image produced by the imaging means to a display monitor.

111 Sterioscopic:
This subclass is indented under subclass 109. Subject matter wherein the camera or solid state imaging device transmits images or allows for the processing of images in three dimensions.

SEE OR SEARCH THIS CLASS, SUBCLASS:
166, for stereoscopic viewing means.

112 Means for coupling camera or imager:
This subclass is indented under subclass 109. Subject matter wherein engaging means are provided to optically and mechanically connect an ocular of an endoscope to a photos:graphic or videos:graphic means.

113 With additional view means:
This subclass is indented under subclass 101. Subject matter wherein an endoscope (a parent scope) is provided with an additional, usually smaller, viewing means for enabling two separate views through an insertion port of the endoscope.

114 With guide means for body insertion:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a device surrounding a portion of the exterior of the tube-like structure of the endoscope to act as an aid in easing the introduction of the endoscope into the body or body cavity.

115 Inflatable cuff or balloons:
This subclass is indented under subclass 114. Subject matter wherein the guide means is provided with expandable portions alternatingly distended to engage and disengage with the interior of the body or body cavity to facilitate the movement of the endoscope into the body or body cavity.

SEE OR SEARCH THIS CLASS, SUBCLASS:
207, for inflatable, flexible or expandable retractors.

116 With inflatable balloon:
This subclass is indented under subclass 101. Subject matter wherein the insertion tube of the endoscope is provided with an inflatable section which, when inflated, enhances observation through the viewing means of the endoscope or retains the endoscope in a desired location.

SEE OR SEARCH THIS CLASS, SUBCLASS:
207, for retractors having inflation means.

117 With means for indicating position, depth or condition of endoscope:
This subclass is indented under subclass 101. Subject matter wherein means are provided on or within an endoscope to quantify or assess the location, deepness usage or state of the endoscope relative to the body portion under investigation.

(1) Note. Patents in this subclass are directed to measuring pressure, distance from object, size of affected objected, depth or angle of insertion, temperature, and degree of color change.

SEE OR SEARCH THIS CLASS, SUBCLASS:
118, for control or monitoring for disfunction and subclass 202 for retractors having sensing or measuring means.

118 With control or monitoring of endoscopic functions:
This subclass is indented under subclass 101. Subject matter wherein functions of the endoscope are remotely operated or supervised to ensure proper operation thereof.

119 With shield to protect operator (e.g., splatter protection):
This subclass is indented under subclass 101. Subject matter wherein the proximal portion of the endoscope is provided with a plate-like barrier to protect the hands or face of the operator from body fluids emanating from a patient.

120 Having endotrachael intubation means on endoscope:
This subclass is indented under subclass 101. Subject matter wherein an endoscope is utilized in introducing a tube into the trachea of a patient.

SEE OR SEARCH THIS CLASS, SUBCLASS:
194, for laryngoscopes designed to insert endotracheal tubes into a patient.

121 With protective sheath:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a fixed or removable covering to shield the endoscope from damage or from exposure to bodily fluids or contamination.

SEE OR SEARCH THIS CLASS, SUBCLASS:
203, for retractors having a protective sheath.

122 For camera or handle:
This subclass is indented under subclass 121. Subject matter wherein the protective sheath encloses an image capturing device or a gripping portion of the endoscope.

123 For auxiliary channels:
This subclass is indented under subclass 121. Subject matter wherein the protective sheath is provided with at least one passage, in addition to the channel enclosing the endoscope, which admits the introduction of other means into the body or body cavity to view or treat the body or body cavity.

124 With means to assist covering or uncovering of sheath:
This subclass is indented under subclass 121. Subject matter wherein the protective sheath comprises means to assist an operator to envelop the endoscope with the protective sheath or remove the protective sheath therefrom.

125 With locking or retaining means for sheath:
This subclass is indented under subclass 121. Subject matter wherein the protective sheath is provided with means to engage with the endoscope to prevent accidental removal or movement of the protective sheath therefrom.

126 With foot pedal control for endoscope operation:
This subclass is indented under subclass 101. Subject matter wherein at least one function of the endoscope may be remotely regulated by means operated by the lower extremity of the body which is in direct contact with ground when a person is in a standing or sitting position.

127 With non-optical distal tip attachment:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a means which may be engaged with the inserting end of the endoscope for purpose other than one involving the viewing or illuminating functions of the endoscope.

128 With particular shaft cross-section:
This subclass is indented under subclass 101. Subject matter wherein a plane perpendicularly intersecting the longitudinal axis of the endoscope has a non-circular perimeter.

129 With particular distal tip configuration:
This subclass is indented under subclass 101. Subject matter wherein significance is attributed to the structure of the end of the endoscope inserted in the body cavity.

SEE OR SEARCH THIS CLASS, SUBCLASS:
188, for specula having means to transmit a view from the distal end.

130 With particular arrangement of internal elements (e.g., shaft reducing):
This subclass is indented under subclass 101. Subject matter wherein the placement of imaging, illuminating, and working members within the tube-like structure of the endoscope is chosen so as to provide a desired reduced outer perimeter or diameter of the tube-like structure.

131 With particular operating handle design (e.g., for comfort):
This subclass is indented under subclass 101. Subject matter wherein the proximal portion of the endoscope held by a holder or an operator is fashioned in a manner conducive to permit

simpler operation in the performance of surgical or other tedious procedures.

132 Universal cord connector for endoscope functions:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a functional plug-like member coupled to the endoscope body by an elongated flexible tube to link various devices provided exteriorly of the endoscope body.

(1) Note. Among the various devices provided on the exterior of the endoscope are controls for light sources as well as air and water supplies.

133 Sterilizable:
This subclass is indented under subclass 101. Subject matter wherein at least one portion of the endoscope may be disinfected without being deleteriously affected by the cleaning process so as to be free from microorganisms.

SEE OR SEARCH THIS CLASS, SUBCLASS:
198, for sterilizable specula handles.

134 Having means to protect user or patient or endoscope from electrical discharge:
This subclass is indented under subclass 101. Subject matter wherein a portion of the endoscope is provided with means to prevent current or charges from electrical components located within the endoscope from harmfully affecting a patient, operator, or the endoscope itself.

135 Urological:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is utilized for investigation or treatment of the structure, functions, and disorders of a urinary tract including examination and treatment of kidneys, ureters, and bladders of both males and females, and testes, epididymis, prostate gland, seminal vesicles and penis in males.

136 Having separable shaft:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with means to permit removal of the tube-like portion of the endoscope from the proximal portion of the endoscope.

137 Having rotatable shaft:
This subclass is indented under subclass 101. Subject matter wherein the tube-like distal portion of the endoscope may be radially turned with respect to the proximal portion of the endoscope.

138 Having rigid tube structure:
This subclass is indented under subclass 101. Subject matter wherein the tube-like structure is inflexible.

139 Having flexible tube structure:
This subclass is indented under subclass 101. Subject matter wherein the tube-like structure is capable of being bent or flexed.

SEE OR SEARCH THIS CLASS, SUBCLASS:
206, for retractors having flexible or malleable structure.

140 Plural layers:
This subclass is indented under subclass 139. Subject matter wherein the flexible tube-like structure is composed of more than a single thickness of material throughout its extent.

141 Articulated segments:
This subclass is indented under subclass 139. Subject matter wherein the flexible tube-like structure is composed of individual, adjacent, interconnected pieces of material to enable the tube-like structure to be flexed.

142 Pivotally connected:
This subclass is indented under subclass 141. Subject matter wherein adjacent members of the articulated segments are secured to each other by means about which they rotate or turn.

143 Having shape memory retaining material component:
This subclass is indented under subclass 139. Subject matter wherein the outer layer of the flexible tube structure is capable of being conformed into a particular form which it will maintain until changed.

144 With adjustable rigidity:
This subclass is indented under subclass 139. Subject matter in which the flexible tube structure contains movable means which permits a degree of flexibility of the tube structure.

145 With bend detecting means (e.g., endoscope tracking):
This subclass is indented under subclass 139. Subject matter wherein means are provided to discern changes in an angle or deflection of the distal portion of the endoscope.

146 With bending control means:
This subclass is indented under subclass 139. Subject matter wherein the flexible endoscope has a bendable insertion section which is provided with means to manipulate the distal end of the insertion section to steer the endoscope to its desired destination within the body or body cavity and to ensure a return of the bendable section to its original horizontal position to facilitate removal without damage to a body orifice in which it has been inserted.

147 With removable control knob:
This subclass is indented under subclass 146. Subject matter wherein the manipulating portion of the bending control mechanism may be separated from the proximal operating portion of the endoscope for replacement.

148 With braking means:
This subclass is indented under subclass 146. Subject matter wherein the bending control is provided with means which when applied cause a slowing or stopping of the bending control means resulting in a freezing of the angular orientation of the bendable insertion section.

149 With control wire tension control (e.g., slack absorbing):
This subclass is indented under subclass 146. Subject matter wherein the bending mechanism is operated by plural, differentially displaced cables which are alternatingly retracted to bend or unbend the endoscope and which are provided with strain regulating means which either reduces strain on the cables to prevent overstretching the cables or places strain on the cables to eliminate slack caused by excess cable.

150 With deflection recovery:
This subclass is indented under subclass 146. Subject matter wherein the bending portion of the endoscope is provided with means which permits the unbending of that portion engaging the body orifice or body cavity when the bending control mechanism is not operating.

151 Having temperature sensitive shape memory retaining material:
This subclass is indented under subclass 146. Subject matter wherein the tube-like structure of the endoscope comprises a composition alloy which has been heat treated to memorize a predetermined shape which can be bent upon the application of a transformation temperature while in a body orifice or body cavity and upon application of a restoration temperature returns to its original shape.

152 Fluid or electrical control means:
This subclass is indented under subclass 146. Subject matter wherein the bending control mechanism is connected to a liquid, gaseous pressure or an electrically controlled power source which adjusts the rigidity of selected portions of the tube-like structure of the endoscope to selectively change the angular orientation of the endoscope within the body or body cavity.

(1) Note. Electrical driven serometers are classifiable in this subclass.

153 Having auxiliary channel:
This subclass is indented under subclass 101. Subject matter wherein the endoscope is provided with a passage in addition to the viewing means which admits the introduction of other operating means into the endoscope to view or treat the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
106, for an auxiliary channel endoscope having a tool and means to move or stop movement of the tool through the auxiliary channel.

154 Channel seal (e.g., forceps stopcock):
This subclass is indented under subclass 153. Subject matter wherein the auxiliary channel has means for substantially closing the end of

the channel which closing means is provided with a portion which admits the passage of instruments therethrough.

155 With interior cleaning means:
This subclass is indented under subclass 153. Subject matter wherein the auxiliary channel is provided with additional means which when employed removes debris and impurities therefrom.

156 Fluid channel (e.g., suction, irrigation, aspiration):
This subclass is indented under subclass 153. Subject matter wherein a gas or a liquid is supplied or removed through the auxiliary channel to introduce the gas or liquid into the body organ or body cavity to which the endoscope has been introduced or to apply suction to remove materials therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:
187, for specula with fluid channels.
205, for retractors having fluid channels.

SEE OR SEARCH CLASS:
433, Dentistry, subclass 93 for suction devices provided with mouth props and subclass 180 for mouth props, per se.

157 With window cleaning:
This subclass is indented under subclass 156. Subject matter wherein the fluid channel is utilized to apply washing fluids to the distal most portion of the viewing means of the endoscope to increase vision therethrough.

158 With air or water supply:
This subclass is indented under subclass 156. Subject matter wherein the fluid channel is connected to a storage area holding a fluid or gas for use in introducing a fluid into the body or applying fluid to the distal portion of the endoscope.

159 Valve construction or valve control means:
This subclass is indented under subclass 156. Subject matter wherein the passage of fluids through the fluid channel is regulated by a finger-operable movable control element disposed on the proximal portion of the endoscope used to open and close the entrance to the fluid channel.

160 Having imaging and illumination:
This subclass is indented under subclass 101. Subject matter wherein significance is attributed to the structure or placement of the optical components of the endoscope including viewing means and the lighting means therefore.

(1) Note. This subclass includes ultrasonic, infrared, and X-ray fluoresents imaging.

SEE OR SEARCH THIS CLASS, SUBCLASS:
178+, for light means used in endoscopes, subclass 182 for light transmitting fibers.
199, for light means used with laryngoscopes.
245, for retractors having illuminating means.
248, for reflectors having lighting means.

161 Strain relief means on optical elements:
This subclass is indented under subclass 160. Subject matter wherein the image or light transmitting material of the endoscope is provided with breakage preventing means to retain the optical integrity of the endoscope.

162 Ocular (e.g., eyepiece):
This subclass is indented under subclass 160. Subject matter wherein the proximal end of the endoscope is provided with a lens, optically aligned with the viewing means to enable the view transmitted from the distal end of the endoscope to be seen at the proximal end of the endoscope.

163 With focusing:
This subclass is indented under subclass 162. Subject matter wherein the clarity or distinctness of a view through the endoscope may be adjusted by changing the distance between lenses located within the ocular.

164 Angled or offset on endoscope shaft:
This subclass is indented under subclass 162. Subject matter wherein the ocular does not lie along the longitudinal axis of the tube-like structure of the endoscope.

165 Plural:
This subclass is indented under subclass 162. Subject matter wherein the endoscope is provided with at least two oculars, the viewing paths of which being joined at some point within the proximal portion of the endoscope to share the remaining viewing path of the endoscope to the distal viewing window.

166 Stereoscopic:
This subclass is indented under subclass 160. Subject matter wherein the endoscope is provided with a three dimensional optical viewing system.

167 Focusing:
This subclass is indented under subclass 160. Subject matter wherein the clarity or distinctness of a view through the endoscope may be adjusted by means other than changing the distance between lenses in the ocular.

168 Magnifying:
This subclass is indented under subclass 160. Subject matter wherein the endoscope is provided with optics enabling the enlargement of an image.

169 Fog prevention:
This subclass is indented under subclass 160. Subject matter wherein an endoscope is provided with means to prevent the viewing window from becoming clouded with condensation during use.

170 Side viewing distal end:
This subclass is indented under subclass 160. Subject matter wherein the distal end of an endoscope is provided with means to deflect the viewing path at a right angle from the longitudinal axis of the endoscope so that images located around the perimeter of the insertion tube may be seen.

171 Oblique viewing distal end:
This subclass is indented under subclass 160. Subject matter wherein the distal end of the endoscope is provided with an imaging path which is at an angle less than 90° to the longitudinal axis of the endoscope.

172 Interchangeable optical system:
This subclass is indented under subclass 160. Subject matter wherein the imaging means of an endoscope is removable for the purpose of replacing or fixing a damaged imaging system or for replacing with a new system to impart new imaging characteristics to the endoscope.

173 View field altering means:
This subclass is indented under subclass 160. Subject matter wherein a plurality of separate images located at different angles from the distal end of the endoscope can be viewed from the same endoscope without moving the exterior of the elongated insertion part.

174 Articulated optical coupler:
This subclass is indented under subclass 160. Subject matter wherein the endoscope is provided with a series of lenses mechanically and optically connected to view an image which may be moved relative to one another at special joints containing optically coupled prisms.

175 Distal optical attachment:
This subclass is indented under subclass 160. Subject matter wherein the distal end of the endoscope is provided with an optional accessory to alter the imagining or illuminating characteristics thereof.

176 Having particular distal lens or window:
This subclass is indented under subclass 160. Subject matter wherein significance is attributed to the structure or placement of the optical transmitting means at the distal end imaging or illuminating means of the endoscope.

177 For improved illumination:
This subclass is indented under subclass 176. Subject matter wherein light exiting from an endoscope passes through a light manipulating member for illuminating an object with a desired light distribution.

178 Light source:
This subclass is indented under subclass 160. Subject matter wherein significance is attributed to the placement or structure of the lighting means in the endoscope structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

99, for specula having a light sources.

223, for body orifice specula having illuminating means.

246+, for retractors having illuminating means.

248, for reflectors having illumination.

249, for lamps and illuminators.

SEE OR SEARCH CLASS:

362, Illumination, subclasses 572+ for light fibers, rods or probes and subclasses 257+ for light sources and modifiers.

179 Lamp in shaft:

This subclass is indented under subclass 178. Subject matter wherein the light source of an endoscope is provided in the form of an illuminating bulb located within the distal end of the tube-like structure of the endoscope.

180 With light intensity control:

This subclass is indented under subclass 178. Subject matter wherein the light source is provided with means to adjust the strength of light exiting the light source as determined by an image received through the optical system of the endoscope.

181 With filter masking, diaphragm, aperture plate:

This subclass is indented under subclass 160. Subject matter wherein means are provided in the path of the observation system to alter the transmittance of light passing through the optical system.

SEE OR SEARCH CLASS:

362, Illumination, subclasses 572+ for light fibers, rods or pipes.

182 Fibers and fiber arrangement:

This subclass is indented under subclass 160. Subject matter wherein the image transmitting means or the illumination transmitting means in the endoscope comprises a plurality of glass or plastic optical fibers organized for effective image or illumination transmission through the elongated tube-like structure of the endoscope.

SEE OR SEARCH CLASS:

362, Illumination, subclass 32 for light transmitting fibers, rods or pipes.

183 Tissue division viewing (e.g., carpal tunnel, plantar fasciotomy):

This subclass is indented under subclass 101. Subject matter wherein an endoscope is utilized to view the removal of a piece of ligamentous tissue.

184 Specula:

This subclass is indented under the class definition. Subject matter comprising a device to facilitate the exploration of the interior of the body by holding open the natural or other surgically created orifices of the body.

185 Laryngoscope:

This subclass is indented under subclass 184. Subject matter wherein the specula comprises a blade and a handle grasping portion, the blade having a proximal end attached to the handle and a distal end adapted for insertion into the mouth to allow imaging of a portion of the mouth, pharynx, and larynx.

SEE OR SEARCH THIS CLASS, SUBCLASS:

190+, for blade structure and subclasses 237+ for retractors adapted for oral use.

SEE OR SEARCH CLASS:

604, Surgery, subclass 514 for methods of introducing a therapeutic material into or removing it from a body orifice.

186 With protective sheath:

This subclass is indented under subclass 185. Subject matter wherein the laryngoscope is provided with a cover to shield the laryngoscope from damage or from exposure to bodily fluids and contamination during use and handling to negate the need for sterilization.

SEE OR SEARCH THIS CLASS, SUBCLASS:

121+, for endoscopes having protective sheaths covering various elements of endoscopes.

187 **With auxiliary channel for fluid traversing:**
This subclass is indented under subclass 185. Subject matter wherein a passage is provided in the laryngoscope which admits the introduction of gas, liquid, or treating means into the throat or for the application of suction means to remove materials therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:
156, and 205, for devices having an auxiliary channel for fluid transmission.

188 **With means to transmit view from distal end:**
This subclass is indented under subclass 185. Subject matter wherein the blade of the laryngoscope is provided with an image relaying means to provide an operator with an image of the mouth, larynx, or pharynx which does not lie in a direct line of sight.

189 **By mirror or prism:**
This subclass is indented under subclass 188. Subject matter wherein the means to transmit a view from the distal end of the blade of the laryngoscope comprises an image reflecting or deflecting means.

SEE OR SEARCH CLASS:
433, Dentistry, subclasses 30+ for dental mirrors provided with other devices of the class.

190 **Having particular blade structure:**
This subclass is indented under subclass 185. Subject matter wherein significance is attributed to the structure of the portion of the laryngoscope inserted into the mouth.

191 **Made from light transmitting material:**
This subclass is indented under subclass 190. Subject matter wherein the blade is transparent or translucent to facilitate viewing all parts of the mouth through the blade or to evenly distribute illumination received at the proximal end of the blade.

SEE OR SEARCH THIS CLASS, SUBCLASS:
178+, and 182, for similar light transmission devices.

SEE OR SEARCH CLASS:
362, Illumination, subclasses 257+ for light sources and light modifiers and subclasses 572+ for light fibers, rods or pipes.

192 **With rough grained surface:**
This subclass is indented under subclass 190. Subject matter wherein an outer surface of the blade of the laryngoscope is not smooth so as to facilitate retention of the laryngoscope within the mouth.

193 **Detachable:**
This subclass is indented under subclass 190. Subject matter wherein the proximal end of the blade may be removed from or folded along the handle of the laryngoscope for replacement or for sterilization.

194 **Specific design for intubation:**
This subclass is indented under subclass 190. Subject matter wherein the shape of the blade facilitates the entry of an endotracheal tube into a patient:

SEE OR SEARCH THIS CLASS, SUBCLASS:
114, for endoscopes designed to have guide means for body insertion.

195 **With cushion or pad (e.g., teeth guard):**
This subclass is indented under subclass 190. Subject matter wherein the blade is provided with a soft, compressible material to prevent injuring a patient during insertion or use of the blade of the laryngoscope in the patient's mouth.

196 **Adjustable (e.g., linearly, angularly):**
This subclass is indented under subclass 190. Subject matter wherein the blade of the laryngoscope may be positioned at an angle with respect to the handle, or may be elongated or shortened to accommodate differently sized oral cavities.

197 **Having particular handle structure:**
This subclass is indented under subclass 185. Subject matter wherein significance is attributed to the grasping portion attached to the proximal end of the blade.

198 Sterilizable:
This subclass is indented under subclass 197. Subject matter wherein the handle of the laryngoscope may be disinfected to remove all contaminants without deleteriously affecting the interior components.

SEE OR SEARCH THIS CLASS, SUBCLASS:
133, for portions of an endoscope which are sterilizable.

199 Illuminating:
This subclass is indented under subclass 185. Subject matter wherein the laryngoscope comprises a light source or means to transmit light along or past the blade of the laryngoscope to allow adequate imaging of portions of the mouth, pharynx, and larynx.

SEE OR SEARCH THIS CLASS, SUBCLASS:
178+, 182, 223, 245+, 248, and 249, for instrument illuminating means.

200 Otoscope (e.g., funnel shaped specula):
This subclass is indented under subclass 199. Subject matter wherein the specula comprises an illuminated funnel shaped portion adapted to be inserted in an ear and designed for inspection of the external portions thereof.

201 Retractor:
This subclass is indented under subclass 184. Subject matter having one or more surfaces for holding tissues or organs out of the field of view of the observer during the diagnosis and/or treatment of interior bodily orifices that are either surgically formed in, or occur naturally within, the body.

SEE OR SEARCH CLASS:
604, Surgery, subclass 514 for methods of introducing a therapeutic material into or removing it from a body orifice.

202 With sensor or measuring means:
This subclass is indented under subclass 201. Subject matter comprising means to detect or calculate various changes in parameters affecting either the patients physiologic condition, or the function of the device.

SEE OR SEARCH THIS CLASS, SUBCLASS:
117, for endoscopes having depth or condition detection.
118, for control or monitoring of disfunctions.

203 With protective sheath:
This subclass is indented under subclass 201. Subject matter comprising sleeve means to cover the tissue retracting surface or surfaces of the retractor.

SEE OR SEARCH THIS CLASS, SUBCLASS:
121+, for endoscopes having a protective sheath.

204 Laproscopic:
This subclass is indented under subclass 201. Subject matter comprising a generally elongated tube-like member having a distal end capable of being inserted within a miniscule bodily orifice and a proximal end extending out of the bodily orifice, wherein the distal end includes tissue-retracting means which may expand larger than the tube-like member, and the proximal end includes means to manipulate the tissue-retracting means.

205 With auxiliary channel (e.g., fluid transversing):
This subclass is indented under subclass 201. Subject matter wherein the retractor is provided with a passage which admits the introduction of fluid or gas for the application of suction means to remove material therefrom.

SEE OR SEARCH THIS CLASS, SUBCLASS:
187, for laryngoscopes having a fluid admitting auxiliary channel.

206 Having flexible, malleable, or shape memory material:
This subclass is indented under subclass 201. Subject matter wherein a substantial portion of the retractor is capable of being bent or shaped into a particular form.

207 Inflatable:
This subclass is indented under subclass 206. Subject matter wherein the flexible or malleable portion of the retractor has fluid pressure means to shape it into the desired configuration or form.

208 Circular or elliptically shaped retracting surface:
This subclass is indented under subclass 206. Subject matter wherein the flexible or malleable member is in the form of a generally circular closed member.

209 Unitary wire construction:
This subclass is indented under subclass 206. Subject matter wherein the flexible or malleable retractor is composed substantially from a single pliable strand of metallic material twisted into a desired shape.

210 With special blade or retracting surface:
This subclass is indented under subclass 201. Subject matter wherein significance is attributed to that portion of the retractor which holds body tissue or organs out of the field of view of an observer.

211 Skeleton blade:
This subclass is indented under subclass 210. Subject matter wherein the retracting surface has a particular, substantially closed peripheral portion which defines a void in which rib-like structures transverse said void from one portion of the peripheral to another portion of said periphery.

(1) Note. The patents in this subclass are retractors which are termed "skeleton" in the art.

SEE OR SEARCH CLASS:
604, Surgery, subclass 514 for methods of introducing a therapeutic material into or removing it from a body orifice.

212 Containing light transmitting material:
This subclass is indented under subclass 210. Subject matter wherein the blade or retracting surface of the retractor is transparent or translucent to facilitate viewing all parts of the tissue or organs through the blade or retracting surface or to evenly distribute illumination received at a proximal end of the blade or retracting surface.

SEE OR SEARCH THIS CLASS, SUBCLASS:
191, for laryngoscopes having a light transmitting component, and subclass 245 for retractors having illuminating means.

213 Detachable from handle:
This subclass is indented under subclass 210. Subject matter wherein the retractor comprises a manual grasping portion attached to a proximal end of the blade or retracting surface which may be removed for replacement or for other purposes.

214 Plural blades on single handle:
This subclass is indented under subclass 210. Subject matter wherein the retractor has a manual gripping portion attached to a proximal end of more than one blade or separate retracting surfaces.

215 Adjustable (e.g., extendable):
This subclass is indented under subclass 210. Subject matter wherein the blade or retracting surface of the retractor may be moved at an angle or rotated with respect to a handle portion, or may be elongated or shortened to accommodate differently sized pieces of tissue or organs to be moved.

216 Multiple pivotable joints on retracting surface:
This subclass is indented under subclass 215. Subject matter wherein the means to hold tissue or organs out of the field of view of the observer comprises a plurality of portions rotatable or swingable about a fixed portion to provide adjustability.

217 With retracting hook, claw, teeth, or barb:
This subclass is indented under subclass 210. Subject matter wherein the blade or retracting surface of the retractor is provided with a curved element, a sharp pointed projection or a projection similar to toothed elements which engage or grasp the organ or tissue to be moved.

218 With compressing jaws:
This subclass is indented under subclass 201. Subject matter wherein the retractor comprises a pair of pivotal connected elements adapted to cooperatively secure the tissue or organ between the elements to move the tissue or organ while held there between.

219 With cooperating retracting members:
This subclass is indented under subclass 201. Subject matter wherein the retractor comprises at least two pivotally connected elements which are adapted to separate from each other to hold open a natural body orifice or a surgical incision or to push aside tissue in opposing directions.

220 Duck-Billed specula (e.g., vagina):
This subclass is indented under subclass 219. Subject matter wherein the cooperating retracting members comprises a pair of blade-like jaws opening at a proximal portion and having a distal portion shaped to conform to the interior passage leading from external genital orifice of a female mammal to a uterus.

221 With auxiliary instrument:
This subclass is indented under subclass 220. Subject matter wherein the vaginal-type specula is provided with a tool for utilizing in a surgical or diagnostic procedure within the vagina.

SEE OR SEARCH THIS CLASS, SUBCLASS:
104+, for endoscopes provided with tools for various functions.

222 With means to change parallel distance between blades:
This subclass is indented under subclass 220. Subject matter wherein the vaginal-type specula comprises means to separate and enlarge the distance between the proximal portion of the jaws.

223 With illuminating means:
This subclass is indented under subclass 220. Subject matter wherein the vaginal-type specula comprises means to provide light to the interior of the vagina.

SEE OR SEARCH THIS CLASS, SUBCLASS:
160, 178+, 182, 199, 245+, 248, and 249, for instruments having illuminating means.

SEE OR SEARCH CLASS:
362, Illumination, subclasses 572+ and 257+, for light sources, modifier, fibers, fibers, rods, and pipes.

224 Three or more members (e.g., trivalve specula):
This subclass is indented under subclass 219. Subject matter wherein the retractor comprises more than two connected elements adapted to separate from each other to hold open a natural body orifice or a surgically created opening to push aside tissue in opposing directions.

225 Pivots along longitudinal axis:
This subclass is indented under subclass 219. Subject matter wherein the cooperating retracting members rotate along a line parallel to the long axis of the length of the retracting member.

226 With special handle:
This subclass is indented under subclass 201. Subject matter wherein significance is attributed to a manual grasping portion attached to a proximal portion of the tissue holding surface.

227 With holder:
This subclass is indented under subclass 201. Subject matter wherein the tissue holding surface of the retractor is provided with a device specifically adapted to retain the tissue holding surface in an area in which it is being utilized to free the hands of the observer for performing other surgical or diagnostic functions while the tissue or organs to be moved are maintained in a retracted state.

228 Having supporting arm:
This subclass is indented under subclass 227. Subject matter wherein the holder comprises an elongate, substantially vertically extending support for retaining the tissue holding surface, or a holder for the tissue holding surface in the desired location.

229 Flexible or articulable:
This subclass is indented under subclass 228. Subject matter wherein the supporting arm is pliable or capable of being bent or flexed.

230 Special table clamp:
This subclass is indented under subclass 228. Subject matter wherein significance is attributed to means for retaining the supporting arm on a patient supporting surface.

231. Supporting frame:
This subclass is indented under subclass 227. Subject matter wherein the holder comprises a structure at least partially surrounding the area of a patient's anatomy under retraction such that the structure retains the tissue holding surface in the area of retraction.

232 Three sided rectangular frame:
This subclass is indented under subclass 231. Subject matter wherein the supporting frame surrounds the area of the patient to be retracted on three sides.

233 Closed frame (e.g., circle, square):
This subclass is indented under subclass 231. Subject matter wherein the supporting structure completely surrounds the area of the patient to be retracted.

234 Handle-holder cooperating means:
This subclass is indented under subclass 227. Subject matter wherein a proximal most portion of the tissue holding surface is provided with a grasping means or an interlocking connection means to restrain or retain the tissue holder surface in a desired position on the holder.

235 Specific use retractor:
This subclass is indented under subclass 201. Subject matter wherein the structure or design of the retractor enables it to be employed for a particular function or purpose.

236 Eyeball:
This subclass is indented under subclass 235. Subject matter wherein the retractor is specifically designed for retracting portions surrounding a ball-shaped portion of an eye enclosed within a socket and eyelids.

237 Mouth:
This subclass is indented under subclass 235. Subject matter wherein the retractor is specifically designed for use in retracting portions surrounding and inside the bodies oral cavity.

238 Brace or prop:
This subclass is indented under subclass 237. Subject matter having means which when placed between a patient's teeth retain the patient's jaws in an open position.

SEE OR SEARCH CLASS:
433, Dentistry, subclass 93 for mouth props provided with suction and subclass 140 for dental mouth props, per se.

239 Jaw spreader with tongue depressor:
This subclass is indented under subclass 237. Subject matter wherein the retractor for the mouth comprises a device to hold open the mouth and a blade-like member to press the organ of taste towards the bottom of the mouth.

240 Tongue depressor:
This subclass is indented under subclass 237. Subject matter wherein the retractor is designed to press the organ of taste towards the bottom of the mouth.

241 Illuminated:
This subclass is indented under subclass 240. Subject matter wherein the tongue depressor has means to provide light around and beyond a distal portion of the tongue depressor.

242 Lip or cheek:
This subclass is indented under subclass 237. Subject matter wherein the retractor is designed to hold the tissue and skin surrounding the exterior of the patients oral cavity in a desired position.

243 Veterinary jaw spreader:
This subclass is indented under subclass 237. Subject matter designed for opening or holding open the mouth of animals.

SEE OR SEARCH CLASS:
433, Dentistry subclass 140 for dental mouth props, per se.

244 Pivoted:
This subclass is indented under subclass 243. Subject matter wherein the veterinary jaw spreader is hinged about a fixed point.

245 Having illuminating means:
This subclass is indented under subclass 201. Subject matter wherein the retractor is provided with means to provide light to the body area being held open for viewing.

SEE OR SEARCH THIS CLASS, SUBCLASS:
241, for tongue depressors having illuminating means and subclass 249 for light lamps.

SEE OR SEARCH CLASS:
362, Illumination, subclasses 251+ for light sources and modifiers, and subclasses 572+ for light fibers, rods and pipes.

246 With lens or mirror:
This subclass is indented under subclass 245. Subject matter wherein the illuminating retractor comprises a reflecting means or a prism to enhance the field of view of the observer.

SEE OR SEARCH THIS CLASS, SUBCLASS:
189, for laryngoscope having mirror or prisms to reflect light.

SEE OR SEARCH CLASS:
433, Dentistry, subclasses 30+ for mirrors combined with dental devices.

247 REFLECTOR:
This subclass is indented under the class definition. Subject matter comprising mirrors designed for redirecting light into cavities or upon the surface of the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
189, for laryngoscope provided with mirrors, subclass 246 for retractors having mirrors or prisms.

SEE OR SEARCH CLASS:
433, Dentistry, subclasses 30 and 31 for mirrors.

248 With illuminating means:
This subclass is indented under subclass 247. Subject matter wherein the reflector is provided with means to provide light to the area of the body under examination.

SEE OR SEARCH THIS CLASS, SUBCLASS:
241, for tongue depressors having a light source and subclass 245 for retractors having lighting means.

249 LAMPS FOR ILLUMINATION:
This subclass is indented under the class definition. Subject matter comprising a light generating device designed to provide light to the body and cavities therein in order to aid in the inspection thereof.

300 DIAGNOSTIC TESTING:
This subclass is indented under the class definition. Subject matter usable in medical evaluation of a condition of a living body.

(1) Note. As indicated in search notes appended to definitions of this subclass and subclasses indented thereunder, other classes specifically provide for certain devices usable in diagnosing a body condition. As also indicated in notes herein, a diagnostic device may be classified in one of the subclasses of Class 600 if a claim for the device includes some limitation showing that the device is specifically designed for use in evaluating a body condition but will be classified elsewhere if the device has disclosed utility for another purpose and is not claimed as aforesaid (e.g., an ultrasonic testing apparatus where no structure particularly adapted for placement on or in the body is claimed may be classified in Class 73, Measuring and Testing, subclasses 585+; or in Class 367, Communications, Electrical: Acoustic Wave Systems and Devices, subclass 87 where the apparatus is disclosed as having another utility in addition to medical testing utility).

(2) Note. This subclass includes methods and apparatus for diagnosis where the information obtained is for use by the

diagnostician, whereas methods and apparatus including diagnosis incident to the operation or control of a surgical treatment apparatus are classified in the appropriate treatment subclass within Class 128 (e.g., a demand-type pacemaker which monitors the heart electric signal to trigger the pacemaker only when a heart arrhythmia occurs is classified in Class 607, subclasses 2+, and an intravenous infusion apparatus is classified in Class 604, subclasses 131+).

SEE OR SEARCH CLASS:

340, Communications: Electrical, subclasses 573.1+ for alarms automatically responsive to the condition of a human being or animal (e.g., sleep inhibiting alarms).

424, Drug, Bio-Affecting and Body Treating Compositions, subclasses 2+ for a composition useful in medical diagnosis.

434, Education and Demonstration, subclass 258 for a coordination testing device for testing a person's physical aptitude to perform a task, where no diagnosis of an abnormal physical condition is involved.

301 Diagnosis of a plurality of physiologic functions:

This subclass is indented under subclass 300. Subject matter wherein several activities of an animal body are evaluated for medical purposes.

302 Endoradiosonde:

This subclass is indented under subclass 300. Subject matter for transmitting from a point inside the body a radio signal indicating a body condition (e.g., an ingestible capsule containing a radio transmitter and a sensor which controls the latter in response to a particular condition such as the pH of liquid in the stomach).

303 Olfactometer:

This subclass is indented under subclass 300. Subject matter wherein a device is placed near a pair of nasal openings on a subject's nose to supply an olfactory stimulus to determine said subject's threshold to the stimulus and measures the entirety of odors supplied to the subject's nose.

304 Readiness to give birth:

This subclass is indented under subclass 300. Subject matter wherein a warning device is applied to an animal, which device generates a signal indicating that the animal is approaching parturition.

(1) Note. These devices are usually placed upon a mare or cow about the time of parturition to warn the animal's breeder that the animal is about to give birth.

305 Hazardous current flow conditions:

This subclass is indented under subclass 300. Subject matter wherein an electromedical patient-monitoring system is provided with sensor means attached to a patient's body, which sensors detect harmful electrical potentials and prevent them from being transmitted to the patient.

306 Measurement of skin parameters:

This subclass is indented under subclass 300. Subject matter wherein means are provided to detect a particular condition of an integument utilizing reflective measurements for evaluating, for example, erythema.

(1) Note. Patents in this subclass measure the amount of moisture content of human skin.

307 Determining rate of fluid loss from body surface:

This subclass is indented under subclass 300. Subject matter wherein means are provided to determine sweating or the amount of change in sweating immediately at the general body surface of an animal or at some specific portion of said body.

308 Physical characteristics of electrolytes:

This subclass is indented under subclass 300. Subject matter wherein means are provided to measure the flow rate of electrolytic fluids including a flow cell having a channel containing electrodes to which a pulse is applied at varying intensity to determine the flow rate in the particular portion of the body.

309 Measuring or detecting nonradioactive constituent of body liquid by means placed against or in body throughout test:
This subclass is indented under subclass 300. Subject matter using means placed against or in the body throughout a test for (a) detecting the presence of a nonradioactive constituent in a body liquid or (b) measuring the amount of such constituent.

(1) Note. The term "body liquid" includes liquid in body tissue as well as blood and liquid in a body cavity such as the stomach or bladder.

(2) Note. Included herein are methods and apparatus for measuring pH of a body liquid (hydrogen being a detectable constituent of a liquid).

SEE OR SEARCH THIS CLASS, SUBCLASS:
407, for methods and apparatus for detecting radiation emanating from a radioactive material in the body.

SEE OR SEARCH CLASS:
356, Optics: Measuring and Testing, subclasses 39+ for blood analyzing means not positioned on the body during its use.
435, Chemistry: Molecular Biology and Microbiology, subclasses 4+ for measuring or detecting constituents by fermentation.

310 Infrared, visible light, or ultraviolet radiation directed on or through body or constituent released therefrom:
This subclass is indented under subclass 309. Subject matter wherein detection or measurement of a component is effected by directing infrared, visible light, or ultraviolet radiation against or through (a) a portion of the body or (b) a component released from the body liquid (e.g., oxygen released from blood).

SEE OR SEARCH THIS CLASS, SUBCLASS:
473+, for infrared radiation.
476+, for visible light radiation.

311 Partial pressure of constituent:
This subclass is indented under subclass 310. Subject matter wherein the light means directed on or through the body measures the partial pressure contribution of each of two or more components, each of which by itself is exerting pressure independent of the other components.

312 Using fluorescent material:
This subclass is indented under subclass 311. Subject matter wherein a photoluminescent material placed in the body is detected to measure partial pressure of components therein.

313 Fetal tissue:
This subclass is indented under subclass 311. Subject matter wherein the partial pressure of a component of a fetus is measured by the application of a probe to a scalp either temporarily or implanted until parturition.

314 Foreign substance:
This subclass is indented under subclass 310. Subject matter wherein the light is passed through a portion of a body to blood carried through that portion to detect the alcohol, acetone, narcotic, or various other products carried in the blood.

315 Bilirubin:
This subclass is indented under subclass 310. Subject matter wherein the light is directed upon the skin of a person to detect jaundice caused by the normal and pathological destruction of the blood's erythrocytes.

316 Glucose:
This subclass is indented under subclass 310. Subject matter wherein the light is utilized to monitor a particular sugar carried in body blood.

317 By fluorescent emission:
This subclass is indented under subclass 310. Subject matter wherein a photoluminescent material is placed in or on the body to monitor or measure the concentration of constituents or compositions contained in the body or its systems.

318 Determining constituents in eye:
This subclass is indented under subclass 310. Subject matter wherein light is directed to the organ of sight, or a particular anatomical portion thereof, to determine the existence of a pathological or physiological condition thereof.

(1) Note. Pathological or physiological conditions include diabetes, conjunctivitis, cholesterol, contaminant in the aqueous humor, etc.

319 Glucose:
This subclass is indented under subclass 318. Subject matter wherein the physiological condition detected in the eye is the presence or level of a sugar.

320 Hemoglobin:
This subclass is indented under subclass 318. Subject matter wherein means are provided to measure the oxygen-bearing, iron-containing conjugated protein in animal red blood cells.

SEE OR SEARCH THIS CLASS, SUBCLASS:
328, for similar devices for measuring hemoglobin in ocular tissue.

321 Using fluorescent emission determination:
This subclass is indented under subclass 318. Subject matter wherein photoluminescent material is placed in the body to monitor or measure several physical parameters or several types of particles in the eye.

SEE OR SEARCH THIS CLASS, SUBCLASS:
317, for the application of photoluminescent materials to measure various parameters in other bodily portions.

322 Determining blood constituent:
This subclass is indented under subclass 310. Subject matter wherein light means are provided to measure or detect the individual components of a fluid circulated by heart action upon an animal's vascular system carrying oxygen and nutrients throughout the body and waste products to excretory organs.

323 Oxygen saturation:
This subclass is indented under subclass 322. Subject matter wherein the light means is utilized to measure the degree of saturation of oxyhemoglobin and the degree of hemoglobin in blood.

(1) Note. Oxymeters are properly classified in this subclass.

324 And other cardiovascular parameters:
This subclass is indented under subclass 323. Subject matter wherein, in addition to measuring the oxygen saturation of the blood, means are provided to measure or detect other physical or physiological functions of the body.

(1) Note. Patents in this subclass disclose measuring or detecting body temperature, blood volume, blood pressure, pulse rate, body metabolism, etc.

325 Inserted in body:
This subclass is indented under subclass 324. Subject matter wherein the means to measure or detect other body parameters are introduced into the body to determine said parameters.

326 And other blood constituents:
This subclass is indented under subclass 323. Subject matter wherein, in addition to oxygen saturation, means are provided to measure or determine carbon dioxide, hydrogen saturation, or other components of arterial blood.

SEE OR SEARCH THIS CLASS, SUBCLASS:
311, for devices for measuring partial pressure constituents of the body.

327 Inserted in body:
This subclass is indented under subclass 326. Subject matter wherein the means to measure the various gases of arterial blood is introduced into the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
325, for devices inserted into the body to measure oxygen and other cardiovascular parameters.

328 Hemoglobin:
This subclass is indented under subclass 326. Subject matter wherein means are provided to measure the level of oxygen saturation carried in arterial blood to ocular tissue by the oxygen-bearing, iron-containing conjugated protein in animal red blood cells.

329 Using a fluorescing material:
This subclass is indented under subclass 323. Subject matter wherein photoluminescent material is placed in the body to measure the oxygen saturation of blood cells.

330 Separation of ac/dc components in signal:
This subclass is indented under subclass 323. Subject matter wherein the oxygen saturation of blood is accomplished by the introduction of light, which produces a signal which is filtered to obtain its alternating and direct current components to determine the root-mean square (RMS) or quotient of said current.

331 Calibrated:
This subclass is indented under subclass 323. Subject matter wherein means are provided to determine whether the arterial blood oxygen's saturation device is operating properly.

332 Inserted in body:
This subclass is indented under subclass 331. Subject matter wherein the oxygen saturation calibration device is introduced into the body.

333 Used in conjunction with associated apparatus (e.g., pacemaker):
This subclass is indented under subclass 323. Subject matter wherein the oxygen saturation means is combined with a heart electronic pulse means which regulates cardiac rate in response to the increase or decrease of the oxygen content of the blood.

334 With tissue perfusion:
This subclass is indented under subclass 323. Subject matter wherein the device which measures the oxygen saturation of the blood has a heating element which increases blood flow in the tissue resulting in a more accurate measurement of blood oxygen saturation.

335 Pressurization of body portion performed:
This subclass is indented under subclass 323. Subject matter wherein oxygen saturation of the blood is obtained by the addition of means which increases atmospheric pressure upon the body part to which it is applied.

336 Detects constituents while excluding components (e.g., noise):
This subclass is indented under subclass 323. Subject matter wherein signals due to movement by a patient are filtered in favor of signals needed to measure the oxygen saturation of the blood.

337 Structure preventing contact of body inserted fiber with internal body portions:
This subclass is indented under subclass 323. Subject matter wherein a band of flexible light-conducting fibers inserted in the body to measure oxygen saturation are provided with means which prevent the light-contacting fibers from touching those portions of the body in which they are inserted.

338 Fetal tissue:
This subclass is indented under subclass 323. Subject matter wherein the oxygen saturation of a prenatal child's blood is measured which is in the womb of a mother.

339 Inserted in body:
This subclass is indented under subclass 323. Subject matter wherein the oxygen saturation measuring means is placed in the body.

340 Measured at specified areas of body portions:
This subclass is indented under subclass 323. Subject matter wherein the oxygen saturation of the blood is measured in a particular body part or parts.

(1) Note. Patent disclosing means for measuring oxygen saturation in teeth or a tooth, brain or brain portions, skull, the eye, etc.

341 Inserted in body:
This subclass is indented under subclass 322. Subject matter wherein the means for determining constituents of the block is placed within the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:

325, 332, and 339, for similar measuring devices inserted in the body.

342 Light conducting fiber inserted in body:

This subclass is indented under subclass 310. Subject matter wherein light transmitting fiber means are placed within the body.

SEE OR SEARCH CLASS:

385, Optical Waveguides, subclasses 117+ for a fiber scope in general.

343 Digestive tract:

This subclass is indented under subclass 342. Subject matter wherein the light conducting fibers are inserted into that portion of the body which converts food in an alimentary canal for assimilation by the body.

344 Mounting structure (e.g., belt, etc.):

This subclass is indented under subclass 310. Subject matter wherein the light source is provided with means adapted to hold the light source in contact with a particular body portion under examination.

345 Electroanalysis:

This subclass is indented under subclass 309. Subject matter wherein detection or measurement of the constituent is effected by means of anodic and cathodic electrodes.

SEE OR SEARCH CLASS:

204, Chemistry: Electrical and Wave Energy, subclasses 400+ for electrolytic analysis and testing apparatus, per se.

205, Electrolysis: Processes, Compositions Used Therein, and Methods of Preparing the Compositions, especially subclasses 775+ for electrolytic analysis or testing processes, per se.

346 Sweat analysis:

This subclass is indented under subclass 345. Subject matter wherein a watery fluid excreted through skin pores is subjected to electroanalysis to determine the presence or amount of specific chemicals to diagnose an abnormal condition of a patient.

347 Blood glucose:

This subclass is indented under subclass 345. Subject matter wherein the level of sugars in the body are monitored or the level of oxygen concentrations in a fluid to determine the difference in oxygen concentration caused by oxidation of said sugars is sensed.

348 Determining ion concentration/partial pressure:

This subclass is indented under subclass 345. Subject matter wherein electroanalysis measures either (a) the chemical parameters of a body fluid or (b) a force exerted by each of several components, each component exerting a pressure independent of other components.

SEE OR SEARCH THIS CLASS, SUBCLASS:

311, for light utilized to measure partial pressure exerted by distinctive gases.

349 Oral fluids:

This subclass is indented under subclass 348. Subject matter wherein the ion concentration or partial gas pressure of fluids contained within the oral cavity are measured.

350 Esophageal or gastrointestinal fluids:

This subclass is indented under subclass 348. Subject matter wherein the ion concentration of various fluids of the digestive tract or the proximal portion of the gastroesophaged function are measured.

351 Fetal:

This subclass is indented under subclass 348. Subject matter wherein the ionic concentration of prenatal fluids are measured or monitored prior to parturition.

352 Using a flowthrough cell:

This subclass is indented under subclass 348. Subject matter wherein a tube-like housing or chamber having a sensor or detector is utilized to determine ionic concentration of fluids passing therethrough.

353 Carbon dioxide or other gases:

This subclass is indented under subclass 348. Subject matter wherein the ionic concentration or partial pressures of various gases are measured or detected.

354 Transcutaneous:
This subclass is indented under subclass 353. Subject matter wherein the ionic concentration of partial pressures of the gases are measured or detected by a means which come into contact with the integument of a patient.

SEE OR SEARCH THIS CLASS, SUBCLASS:
357, for the transcutaneous detection of oxygen through the skin.

355 Oxygen tension:
This subclass is indented under subclass 348. Subject matter wherein the ionic concentration or partial pressure of oxygen availability in body tissue or bone are measured.

356 Eye:
This subclass is indented under subclass 355. Subject matter wherein the oxygen tension in the organ of sight is measured or detected.

357 Transcutaneous:
This subclass is indented under subclass 355. Subject matter wherein the oxygen tension in tissue or bone is measured or detected by a means in contact with the integument of a patient which senses the oxygen passing through the integument.

SEE OR SEARCH THIS CLASS, SUBCLASS:
354, for similar devices for measuring or detecting various other gases through the skin.

358 Including tissue perfusion:
This subclass is indented under subclass 357. Subject matter wherein oxygen tension is measured or detected during the application of a heating element placed against a patient's integument noting the increase of blood flow in the area contacted by the heating element.

SEE OR SEARCH THIS CLASS, SUBCLASS:
353, for carbon dioxide or other gases through the skin.

359 Temperature compensated:
This subclass is indented under subclass 357. Subject matter wherein the oxygen partial pressure sensing the value produced from the oxygen pressure sensor is compared to a body temperature sensor placed on or in the body, which sensor emits a signal which is processed to compare the partial pressure to a preprogrammed normal value and subsequently corrects the partial pressure value to that which is normal for the corrected body temperature to ensure a true oxygen partial pressure value.

360 Internal:
This subclass is indented under subclass 355. Subject matter wherein the oxygen pressure sensor is placed within the body.

361 pH:
This subclass is indented under subclass 348. Subject matter wherein the ionic concentration of hydrogen is measured or detected in the blood.

362 Absorbent patch for fluid analysis:
This subclass is indented under subclass 309. Subject matter wherein a watery fluid excreted through skin pores is taken in through the interstices of a material capable of holding a volume of fluid to measure or determine chemical substances taken into the body.

363 Perfusion detection:
This subclass is indented under subclass 309. Subject matter wherein means are provided to measure or detect the presence of a gas or of an administered gas or liquid containing an inert gas in a patient's tissue or vascular system to determine the sufficiency of the amount of gas or liquid in the body in order to make adjustments to the necessary normal needs of the body.

364 Blood gas:
This subclass is indented under subclass 309. Subject matter wherein a gas analyzer is attached to or inserted into the body to measure or determine the amount and type of dissolved gas carried in a blood stream.

SEE OR SEARCH THIS CLASS, SUBCLASS:

327, and 341, for similar devices inserted in the body to determine or measure constituents carried in the blood.

365 Glucose measurement:

This subclass is indented under subclass 309. Subject matter wherein means are employed to measure or detect the amount of blood sugar levels in the vascular system of the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:

319, for devices utilizing various light devices to determine glucose levels in the body. See also subclass 347 for blood glucose detection utilizing electroanalysis.

366 Equilibration and analysis of fluid:

This subclass is indented under subclass 309. Subject matter wherein a sample of various fluids in a patient's body are determined by a transcutaneous means or a means inserted in the body having a tubular permeable membrane which contains or admits a dialysis fluid, which fluid is equilibrated with the body fluid of the patient and subject to further analyses of component material in the body fluid.

367 Holder for color indicator (e.g., fertility tester):

This subclass is indented under subclass 309. Subject matter wherein a means designed to carry a strip-like material is inserted into a body orifice to detect the presence of certain compounds within the body.

368 Physical characteristics of blood:

This subclass is indented under subclass 300. Subject matter wherein means are provided for the quantitative measurement of red and white blood cell indices.

369 Coagulation:

This subclass is indented under subclass 368. Subject matter wherein means are provided to measure the time in which liquid blood is transformed into a soft, semisolid, or solid mass.

370 Erythrocyte sedimentation rate/viscosity:

This subclass is indented under subclass 300. Subject matter wherein a quantity of yellowish, nonnucleated, disk-shaped cells of blood which contains hemoglobin is measured by (a) mixing the quantity with an anticoagulate, placing it in a cylindrical or columnar storage means, then timing it as it settles out or falls; or (b) calculating the resistance of the quantity to flow.

371 Bleeding detection:

This subclass is indented under subclass 300. Subject matter for detecting the flow or loss of blood.

SEE OR SEARCH CLASS:

436, Chemistry: Analytical and Immunological Testing, subclass 66 for a chemical test for occult blood not performed in contact with the body.

372 Structure of body-contacting electrode or electrode inserted in body:

This subclass is indented under subclass 300. Subject matter where the construction of a conductor including the means necessary for attaching a conductor to the body through which a current of electricity enters or leaves the body, or a particular body part, for diagnostic purposes.

(1) Note. An electrode is classifiable here only if it claims structural details of a diagnostic electrode or the means required to attach or restrain said electrode on an animal body.

SEE OR SEARCH CLASS:

607, Surgery: Light, Thermal, and Electrical Application, subclasses 115+ for electrodes of similar structure wherein said electrodes are not used for a diagnostic purpose.

373 Electrode placed in body:

This subclass is indented under subclass 372. Subject matter wherein the electrode is in contact with a particular portion of an animal body.

(1) Note. Patents proper for this subclass include an electrode placed in any natural or surgically made body orifice.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclass 118 for non-diagnostic electrodes and subclasses 133 through 138 for electrodes placed in the mouth, ear, gastrointestinal tract, nose, rectum, or vagina.

374 Electrode placed in or on heart:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed endocardially or epicardially.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclasses 5+ for cardioverting/defibrillating devices, subclasses 9+ for heart rate regulating devices, and subclass 122 for endocardial energy applicators.

375 Anchored:
This subclass is indented under subclass 374. Subject matter wherein the heart electrode is attached to the external or internal surfaces of the heart by means to hold it in place.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclass 149 for various means for holding an electrical energy applicator against the body.

376 Fetal monitoring:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed in a vagina and attached to a maturing fetus while in a female's womb.

SEE OR SEARCH THIS CLASS, SUBCLASS:
453, for fetal HR monitoring and subclass 511 for fetal heartbeat monitors.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, cross-reference art collection 902 for fetal monitoring devices for monitoring conditions other than the heart rate.

377 Electrode implanted in body:
This subclass is indented under subclass 373. Subject matter wherein the electrode is surgically placed within an animal body.

(1) Note. Patents in this subclass disclose those electrodes implanted in the body in general and those electrodes implanted near nerves.

SEE OR SEARCH THIS CLASS, SUBCLASS:
25, for surgically implanted hearing aids and subclasses 30+ for surgically implanted urinary or incontinent devices.

SEE OR SEARCH CLASS:
604, Surgery, subclass 891.1 for surgically implanted drug release devices.

378 Electrode in brain:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed in contact with that part of an animal's central nervous system enclosed in a cranium consisting of a soft, convoluted mass of grey and white matter which serves to control and coordinate mental and physical actions.

SEE OR SEARCH THIS CLASS, SUBCLASS:
377, for devices implanted on nerves, subclass 378 for electrodes implanted in the brain, and subclass 544 for detecting brain electrical signals.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclasses 117 and 118 for electrical applicators placed in contrast with the spinal cord or a nerve.

379 Electrode in ear:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed in contact with the body's organ of hearing.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclass 136 for electrodes placed in the external auditory

canal and subclass 137 for an electrode in contact with the cochlea.

380 Electrode in esophagus or pharynx:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed in that part of the animal body connecting a mouth with a stomach, gullet, or that part of the animal body consisting of a cavity and its surrounding membrane and muscles connecting a mouth with the esophagus.

SEE OR SEARCH THIS CLASS, SUBCLASS:
374, for cardiac electrode placed in contact with the external portion of the heart through the esophagus.

SEE OR SEARCH CLASS:
607, Surgery, Light, Thermal, and Electrical Application, subclass 124 for electrical energy applicators placed in the esophagus and subclass 133 for similar devices placed in the gastrointestinal tract.

381 Electrode in artery or blood vessel:
This subclass is indented under subclass 373. Subject matter wherein the electrode is placed in a component of the circulatory system which carries blood to or from the heart.

SEE OR SEARCH THIS CLASS, SUBCLASS:
462, for devices placed in blood vessels or a body orifice.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 51+ for methods of introducing material into or removing material from blood vessels.
607, Surgery: Light, Thermal, and Electrical Application, subclass 118 for electrodes placed in the body and subclass 122 for electrodes placed in the heart.

382 Electrode attached to or positioned relative to a specific external body portion:
This subclass is indented under subclass 372. Subject matter wherein the electrode is affixed or located on exterior parts of the body.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 174+ for means for attaching conduits to the body.
607, Surgery: Light, Thermal, and Electrical Application, subclass 149 for means to hold an electrical applicator on the body.

383 Head:
This subclass is indented under subclass 382. Subject matter wherein the electrode is attached to an upper body portion joined to a body trunk by a neck containing a brain, an eye, mouth, ears, and nose.

SEE OR SEARCH THIS CLASS, SUBCLASS:
378, for an electrode placed in the brain and subclass 379 for an electrode placed in the ear.

(1) Note. Patents disclosing the positioning relative to the eye are properly classifiable in this subclass.

384 Attached to one of the body's extremities:
This subclass is indented under subclass 382. Subject matter wherein the electrode is attached to either of the body's extremities or any of the terminal parts of a hand.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclass 144 for electrical energy applicators attached to the foot.

385 Radiolucent:
This subclass is indented under subclass 382. Subject matter wherein the electrode is composed of material which permits the passage of X-rays without obstructing a clear view of the body part to which the electrode is attached.

386 Means for attaching electrode to body:
This subclass is indented under subclass 372. Subject matter wherein the electrode is provided with attaching means which affix said electrode on the body or a part thereof.

387 Suction:
This subclass is indented under subclass 386. Subject matter wherein the electrode is attached to the body, or a part thereof, by means applying negative atmospheric pressure to said body or body part.

SEE OR SEARCH CLASS:
601, Surgery: Kinesitherapy, subclasses 6+ for vacuum means attached to various body parts.
604, Surgery, subclass 176 for vacuum means for securing a conduit to a body.

388 Garment:
This subclass is indented under subclass 386. Subject matter wherein the electrode is attached to the body or body part by means of an article of clothing.

SEE OR SEARCH CLASS:
128, Surgery, subclasses 889+ for body restraint devices, body restraint garments, vests, belts, or straps.
604, Surgery, subclass 396 for panty-type garment for supporting a catamenial pad.

389 Vest:
This subclass is indented under subclass 388. Subject matter wherein the garment is in the form of a close-fitting, waist-length, sleeveless garment carrying electrodes.

390 Belt or strap:
This subclass is indented under subclass 386. Subject matter wherein the electrode is attached to the body by means of a band of material encircling a waist or a narrow strip of flexible material for fastening or holding an electrode on the body.

SEE OR SEARCH CLASS:
128, Surgery, subclass 876 for belt or strap means for body restrainers.
601, Surgery: Kinesitherapy, subclasses 143+ for a belt supported frictioning device.
604, Surgery, subclass 179 for a belt or strap supporting a conduit on the body; subclass 353 for a belt, strap, or harness for urine receptacles; and subclass 392 for a belt, strap, or band for securing a catamenial pad on the body.
607, Surgery: Light, Thermal, and Electrical Application, subclass 149 for means to hold an electrical applicator on the body.

391 Adhesive:
This subclass is indented under subclass 386. Subject matter wherein the electrode is attached upon the body by flexible material means coated with a substance which permits the strip to adhere to the body.

SEE OR SEARCH CLASS:
604, Surgery, subclass 180 for adhesive means for securing a conduit to the body and subclass 389 for adhesive means for securing a catamenial pad to the body.

392 Having release sheet:
This subclass is indented under subclass 391. Subject matter wherein the electrode adhesive attaching means carries a removable strip of material in contact with the adhesive surface to protect said adhesive contact surface from drying out prior to use in attaching the electrode to the body.

SEE OR SEARCH CLASS:
604, Surgery, subclass 389 for similar release sheet structure associated with an adhesive attachment means to attach a catamenial pad to the body.

393 Plural electrodes carried on single support:
This subclass is indented under subclass 372. Subject matter wherein more than one electrode is secured on the same holding or attaching means.

(1) Note. A support or carrier includes a cable having plural electrodes thereon or a cluster of cables secured together carrying plural electrodes.

394 Head and socket connector for attaching lead to electrode:
This subclass is indented under subclass 372. Subject matter wherein the electrode cable carrying an electrical current to or from the body is attached to the electrode by means of cap,

post, snap, or cup-type matching piece which cooperates and fits with a hollow or upstanding receptacle portion to hold the two portions together to facilitate passage of an electrical current.

395 Electrode composition:
This subclass is indented under subclass 372. Subject matter wherein significance is attributed to the component materials of the electrode.

396 Silver/silver chloride containing:
This subclass is indented under subclass 395. Subject matter wherein at least a portion of the composition includes a ductile, white, conductive silver salt compound or the metal, per se.

397 Electrolyte containing:
This subclass is indented under subclass 395. Subject matter wherein the electrode composition includes a conductive medium in which electrical current is enhanced and conducted to or from the body.

398 Testing aqueous humor pressure or related condition:
This subclass is indented under subclass 300. Subject matter in which the amount of force exerted by a clear, lymph-like fluid located in the chamber in an eye between a cornea and a lens therein for evaluating a condition which causes an abnormal force to be exerted in said chamber is assayed.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 78+ for methods and apparatus for measuring hardness.

399 Measuring impedance to flow of aqueous humor (tonometry):
This subclass is indented under subclass 398. Subject matter for measuring resistance to flow of aqueous humor through ducts of an eyeball.

400 Measuring acoustic impedance of eye:
This subclass is indented under subclass 398. Subject matter whereby acoustic impedance of the organ of sight is determined.

401 Fluid jet directed against eye:
This subclass is indented under subclass 398. Subject matter wherein a stream of fluid (e.g., air) is impinged upon the eye.

402 Eye vibrated:
This subclass is indented under subclass 398. Subject matter wherein the eye is moved to and fro or up and down repeatedly and rapidly.

403 Pressure indicator includes liquid column:
This subclass is indented under subclass 398. Subject matter wherein pressure is indicated by means including a column of fluid.

404 Pressure indicator includes pointer swingable over scale and mechanically driven by eye contacting means:
This subclass is indented under subclass 398. Subject matter wherein the eye contacting means (e.g., a rod) is mechanically linked to a pointer swingable over a pressure indicating scale.

405 Measuring force required to produce standard or measured eye flattening (applanation):
This subclass is indented under subclass 398. Subject matter including means for measuring the force required to press a flat area on the normally curved surface of the eye, the area being of a standard size (e.g., an area of known size marked on the end of a transparent pressure-applying rod) or being measured so that pressure within the eye can be derived by means of the equation: Force = (Pressure)(Area)).

406 Disposable or sterilizable eye contacting structure:
This subclass is indented under subclass 405. Subject matter wherein the means provided to the flat area of the eye is discarded after a single use or treated to destroy micro-organisms on the eye portion to which it has been applied.

407 Detecting nuclear, electromagnetic, or ultrasonic radiation:
This subclass is indented under subclass 300. Subject matter including means for detecting (a) radiation in the form of energy or mass released from the nuclei of an atom, (b) radiation included in the entire electromagnetic

spectrum, or (c) radiation which consists of a vibratory disturbance in the pressure and density of a fluid, or in the elastic strain in a solid, and which has a frequency higher than that detectable by the human ear.

(1) Note. Included hereunder is apparatus for detecting radiation of the designated types emanating from the body (e.g., radiation from radioactive material in the body, etc.) and radiation of the designated types directed against and either reflected from or passed through the body. This subclass also includes means for detecting changes produced in fields of radiation of the designated types which result from placement of the body therein.

(2) Note. Included hereunder is a device usable in conjunction with testing apparatus involving nuclear, electromagnetic, or ultrasonic radiation. For example, subclasses 656+ relate to flexible catheters used to inject into the body (a) a radio-opaque material so that an X-ray will reveal the contour of a passage or (b) a radioactive material so that a suitable means for detecting the material can be used to trace its course.

(3) Note. Included in this subclass are devices utilizing X-rays which are photons, extranuclear in their origin, arising from changes in orbital (or other) electron energy levels. See subclass 436, indented hereunder, for devices utilizing intranuclear rays, such as gamma rays, which are photons intranuclear in their origin, arising from nuclear decay processes.

SEE OR SEARCH THIS CLASS, SUBCLASS:

1+, for application of radioactive substances to the body for therapeutic purposes.

SEE OR SEARCH CLASS:

250, Radiant Energy, subclasses 363.01+ for body scan apparatus, per se, where no structure particularly adapted for placement on or in the body is claimed.

606, Surgery, particularly subclasses 2+, 20+, 27+, and 32+ for application of light, cold, heat, and electrical radiation, respectively, to the body for therapeutic purposes.

408 Using neural network or trainable (adaptive) system:

This subclass is indented under subclass 407. Radiation detection wherein the detected signals are analyzed using a learning system which comprises multiple layers of interconnected neurons or that compares unknown input patterns to reference patterns, the reference patterns being generated through a series of training steps.

SEE OR SEARCH CLASS:

382, Image Analysis, subclasses 156+ for neural networks and subclasses 159+ for trainable classifiers or pattern recognizers (e.g., Adeline, Perceptrons).

706, Data Processing: Artificial Intelligence, subclasses 15 through 44 for neural networks.

409 Magnetic field sensor (e.g., magnetometer, SQUID):

This subclass is indented under subclass 407. Subject matter including a device detecting the strength and orientation of an induced or natural attraction or repulsion (dipolar) force field associated with living tissue.

(1) Note. Included in this subclass is detection of a magnetic field surrounding an arm, leg, organ, etc.

410 Magnetic resonance imaging or spectroscopy:

This subclass is indented under subclass 407. Subject matter for detecting radiation wherein the means for detecting is a system which applies electromagnetic radiation matching the natural precessional frequency of the nucleus of an atom in a living body to create a likeness (i.e., an image) or to otherwise analyze the condition of the body being medically evaluated.

(1) Note. The image creating or analyzing system (e.g., spectrometer, etc.) may be used for generating a tomos:graphic image or in any other way aiding in diagnostic analysis.

(2) Note. A system of this type was originally termed a nuclear magnetic resonance (NMR) system. Nuclear magnetic resonance is considered to encompass both magnetic resonance imaging (MRI) and magnetic resonance spectroscopy (MRS).

SEE OR SEARCH THIS CLASS, SUBCLASS:
436, for diagnostic testing involving nuclear radiation.

SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, particularly subclasses 307+ for a magnetic resonance imaging or spectroscopy device where no structure particularly adapted for placement on or in the body is claimed.
436, Chemistry: Analytical and Immunological Testing, particularly subclass 173 for in vitro analytical or immunological testing using nuclear magnetic resonance, electron spin resonance, or other spin effects or mass spectrometry.

411 Combined with therapeutic or diverse diagnostic device:
This subclass is indented under subclass 410. Subject matter in which the system also has a treatment or medical determination apparatus (e.g., hyperthermia, lithotripsy).

412 Temperature detection:
This subclass is indented under subclass 410. MRI including a device to measure the amount or change of heat in the tissue of interest.

(1) Note. Included in this subclass is a meter to measure the exact temperature or the change in temperature of a tissue sample.

SEE OR SEARCH THIS CLASS, SUBCLASS:
549, diagnostic testing with temperature detection.

413 With triggering or gating device:
This subclass is indented under subclass 410. Subject matter including an apparatus for initiating MRI data acquisition using a physiological signal.

414 Using fiducial marker:
This subclass is indented under subclass 410. Subject matter including a reference or indicator on or in a body (e.g., target).

415 With means for positioning patient or body part:
This subclass is indented under subclass 410. Subject matter including a device for precisely placing or posing a body or a joint, appendage, organ, etc. within the MRI system.

416 Simulation of modeling:
This subclass is indented under subclass 410. Subject matter in which the detection is imitated to study the effects.

417 With stereotactic device:
This subclass is indented under subclass 410. Subject matter wherein a means is provided for use in the application of magnetic resonance image for directing the tip of a medical instrument (e.g., a needle or an electrode) in three planes with the ability to reach or return to a predetermined point or region through a relatively small access opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
429, for stereotactic devices for guiding radiation detectors.

SEE OR SEARCH CLASS:
606, Surgery, subclass 130 for stereotactic devices for guiding surgical instruments.

418 With means for communicating with patient:
This subclass is indented under subclass 410. Subject matter provided with means to permit conversation or another form of contact with a person in the device.

419 Of fluid flow:

This subclass is indented under subclass 410. MRI wherein the image creating or analyzing system is used to aid in medically evaluating or quantifying a body liquid or gas traveling through the body.

SEE OR SEARCH CLASS:

324, Electricity: Measuring and Testing, particularly subclass 306 for magnetic resonance imaging or spectroscopy of fluid flow rate where the fluid may not be limited to a body fluid and no structure particularly adapted for placement on or in the body is claimed.

420 Using detectable material placed in body:

This subclass is indented under subclass 410. Subject matter wherein an externally observable substance is put into the living body to enhance image creation or analysis.

SEE OR SEARCH THIS CLASS, SUBCLASS:

431+, for a detectable material placed in the body for aiding in the medical evaluation of a living body while using other types of radiation.

SEE OR SEARCH CLASS:

250, Radiant Energy, particularly subclasses 302+ for a radiation tracer method.

424, Drug, Bio-Affecting and Body Treating Compositions, particularly subclasses 9.3+ for a magnetic resonance imaging contrast composition.

421 Including any system component contacting (internal or external) or conforming to body or body part:

This subclass is indented under subclass 410. Subject matter consisting of a particular element or part of the image creating or analyzing system which is placed on, placed in, or configured to fit a portion of a patient's anatomy.

(1) Note. This subclass takes both the combination and the subcombination of, for example, a magnet, coil, and catheter.

(2) Note. Excluded from this subclass are fiducial markers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

414, for fiducial marker for MRI.

SEE OR SEARCH CLASS:

324, Electricity: Measuring and Testing, particularly subclasses 318+ for a magnetic resonance imaging or spectroscopy system component where no structure particularly adapted for contacting or conforming to a body part of a patient is claimed.

335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, particularly subclasses 209+ for a magnet which can be used to provide an appropriate magnetic field in a magnetic resonance imaging or spectroscopy system.

422 Coil:

This subclass is indented under subclass 421. Subject matter which is a device for receiving or transmitting an RF signal (i.e., gradient coil, RF coil).

423 With means for inserting into a body:

This subclass is indented under subclass 422. Subject matter including a device for placement into a patient.

424 With means for determining position of a device placed within a body:

This subclass is indented under subclass 407. Subject matter including an apparatus for locating the position of a device or foreign object that is inside a patient's body.

425 With tomos:graphic imaging obtained from electromagnetic wave:

This subclass is indented under subclass 407. Subject matter for detecting radiation including a special technique used to show in detail images of structures lying in a predetermined plane of tissue while eliminating or blurring detail in images of structures in other planes.

SEE OR SEARCH CLASS:
378, X-Ray or Gamma Ray Systems or Devices, subclasses 21+ for tomography.

426 Using fiducial marker:
This subclass is indented under subclass 425. Subject matter including a reference or indicator on or in a body.

427 Combined with therapeutic or diagnostic device:
This subclass is indented under subclass 425. Subject matter in which the system also has a treatment apparatus.

428 With triggering or gating device:
This subclass is indented under subclass 425. Subject matter for detecting radiation including an apparatus for initiating data acquisition using a physiological signal, EKG, heartbeat, etc.

429 With stereotactic device:
This subclass is indented under subclass 425. Subject matter wherein the tomos:graphic image is utilized in the application of magnetic resonance image for directing the tip of a medical instrument (e.g., a needle or an electrode) in three planes with the ability to reach or return to a predetermined point or region through a relatively small access opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:
417, for stereotactic devices for guiding electromagnetic radiation devices.

SEE OR SEARCH CLASS:
606, Surgery, subclass 130 for stereotactic devices for guiding a surgical instrument in three planes.

430 With microwave carrier signal:
This subclass is indented under subclass 407. Subject matter wherein an electromagnetic wave of extremely high frequency (3 gigahertz, .1 to 10 cm) is transmitted into the body of a patient and detected to determine performance of a particular function of the body.

431 Detectable material placed in body:
This subclass is indented under subclass 407. Subject matter wherein an externally detectable material, such as a radio-opaque or radioactive fluid, is placed in the body.

SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 302+ for radiation tracer methods.
424, Drug, Bio-Affecting and Body Treating Compositions, subclass 1 for radioactive fluids, per se, usable for treating or diagnosing the body; and subclasses 4+ for X-ray contrast compositions.

432 Piston-type ram forces material into body:
This subclass is indented under subclass 431. Subject matter including a piston-type ram (e.g., a syringe plunger) which injects the detectable material into the body.

433 Using flexible catheter:
This subclass is indented under subclass 431. Subject matter wherein the detectable fluid is placed in the body through a flexible catheter.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 280+ for catheters.

434 Catheter guide means:
This subclass is indented under subclass 433. Subject matter including means for either (a) guiding the catheter while it is being inserted into the body or (b) guiding the catheter after it has been inserted within the body (e.g., means for bending the tip of the catheter after its insertion in the body so that the catheter will enter a selected portion of a branched passageway).

435 Catheter structure:
This subclass is indented under subclass 433. Subject matter including structure of the catheter.

436 Nuclear radiation (e.g., radioactive emission, etc.):
This subclass is indented under subclass 407. Subject matter wherein the radiation is energy or mass released from the nuclei of atoms.

437 Ultrasonic:
This subclass is indented under subclass 407. Methods and apparatus wherein the radiation applied to the body consists of a vibratory acoustic frequency or sound wave produced by a transducer which causes a disturbance in the pressure and density of a fluid, or in the elastic strain in a solid, and has a frequency higher than that detectable by the human ear.

SEE OR SEARCH THIS CLASS, SUBCLASS:
528, for heart sound detection.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 584 through 648 for mechanical wave testing apparatus and methods where no structure particularly adapted for placement on or in the body is claimed and where a patent discloses general utility in addition to surgical utility.
181, Acoustics, subclasses 101+ for geophysical or subsurface exploration involving mechanically transmitting or receiving sound waves, subclass 123 for mechanical sound echo systems in general and subclass 125 for mechanical sound location means.
367, Communications, Electrical: Acoustic Wave Systems and Devices, subclass 87, subclasses 7+ for producing images of the body subclasses 118+, for electrical systems using compressional waves to determine distance or direction and subclasses 14+, for electrical systems using compressional waves to investigate geologic or subsurface structure.

438 Used as an indicator of another parameter (e.g., temperature, pressure, viscosity):
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic means serves as an intermediate in detecting a physical variable which is nonanatomic in nature.

439 With therapeutic device:
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic radiation is used in conjunction with another device which treats the body therapeutically.

(1) Note. Examples of therapeutic devices used in conjunction with the ultrasonic diagnostic radiating means in this subclass are tissue diathermy or fractionation, etc.

SEE OR SEARCH CLASS:
601, Surgery: Kinesitherapy, subclass 1 for ultrasonic devices used in kinesitherapy and subclass 328 for devices used to fractionate kidney stones in the body.

440 Plural display mode systems:
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic system produces signal outputs, which outputs are presented in plural display modes and at least one of said modes being an ultrasonic display.

441 Having B-scan and Doppler:
This subclass is indented under subclass 440. Subject matter wherein the display mode includes an imaging display which receives ultrasonic echo information in the course of transducer scanning operation and the echo signals are utilized to modulate brightness of the display at each point scanned and processed to produce successive scan lines on the display; and a second separate transducer means usually oriented at an angle with respect to the perpendicular to the skin of the body, such that a beam emitted from said transducer has a component in the direction of flowing blood in blood vessels flowing beneath said skin, which blood flow representation is processed for display.

442 Tissue attenuation or impedance measurement or compensation:
This subclass is indented under subclass 437. wherein the ultrasonic means measures tissue attenuation or the resistance of the body to the flow of the ultrasonic radiation and produces either a measurement of a body region or the said ultrasonic means is adjusted or compensated for attenuation effects.

443 Anatomic image produced by reflective scanning:
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic means scans across at least one dimension relative to the body examined and reflected energy from

said scan means is used to produce a cross-sectional or contour image of the body anatomy.

444 With mechanical and electronic scanning:
This subclass is indented under subclass 443. Subject matter wherein mechanical means move the ultrasonic scan means and additional electronic means are provided to shift the axes of the scan means.

445 Mechanical scanning:
This subclass is indented under subclass 443. Subject matter wherein the ultrasonic scan means is moved by mechanical means to effect either simple or complex movement thereof relative to that portion of the body being scanned.

446 Hand-held unit:
This subclass is indented under subclass 445. Subject matter wherein the ultrasonic scan means and its driving means are housed in a portable, manually held unit.

447 Electronic array scanning:
This subclass is indented under subclass 443. Subject matter wherein the ultrasonic scan is affected by multielement ultrasonic scan or probe means capable of receiving multiple echoes from the ultrasonic wave transmitted to that portion of the body under diagnosis.

448 Through-transmission (e.g., time-of-flight) imaging:
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic scanning transducer means generates ultrasonic waves to insonify through a portion of the body under observation and an ultrasonic receiving transducer converts at least a portion of an acoustical image field into electrical signals, which signals are processed into an image.

449 One-dimensional anatomic display or measurement:
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic radiating means produces a display or a measurement of the portion of the body in a single dimension (e.g., thickness, etc.).

450 Cardiographic:
This subclass is indented under subclass 449. Subject matter wherein the single dimension display or measurement is of the heart.

451 Echoencephalography:
This subclass is indented under subclass 449. Subject matter wherein the single dimension display or measurement is of the interior portion of a skull, or a portion thereof, of the subject body.

452 Ophthalmic:
This subclass is indented under subclass 449. Subject matter wherein the single dimension display or measurement is of the interior portion of the eye of the subject body.

453 Doppler effect (e.g., fetal HR monitoring):
This subclass is indented under subclass 437. Subject matter wherein the ultrasonic wave is varied in frequency or shifted as a result of relative motion between the wave source and moving internal organs or structures in the body to which the wave is applied.

454 Blood flow studies:
This subclass is indented under subclass 453. Subject matter wherein the Doppler shift is utilized to analyze blood flow rate or volume.

455 Pulse Doppler:
This subclass is indented under subclass 454. Subject matter wherein the ultrasonic wave emitted from the scanning means is characterized by a momentary fluctuation in an electrical quantity, as in voltage or current, applied to the scanning means.

456 With volumetric measurement:
This subclass is indented under subclass 455. Subject matter wherein a quantitative determination of blood flow volume is detected.

457 CW Doppler:
This subclass is indented under subclass 454. Subject matter wherein the ultrasonic wave is emitted from the scanning means in a continuous mode.

458 Contrast enhancement:
This subclass is indented under subclass 437. Subject matter wherein means are provided to intensify reflectivity of the ultrasonic wave within that portion of the body under diagnosis by the use of marking devices, implantable means, or by structural adaptations on instruments used therewith.

459 Structure of transducer or probe assembly:
This subclass is indented under subclass 437. Subject matter wherein particular significance is attributed to the structural features of the ultrasonic sound wave generating means.

461 Associated with puncturing instrument:
This subclass is indented under subclass 459. Subject matter wherein the ultrasonic sound wave generating means has a medical needle associated therewith which is guided by said wave generating means to pierce that portion of the body under diagnosis.

462 Probe placed in vascular system or body orifice:
This subclass is indented under subclass 461. Subject matter wherein the ultrasonic wave generating means is mounted upon or inserted into a blunt tipped instrument which is adapted for insertion into a circulatory system or a natural body opening.

463 With acoustical or display imaging:
This subclass is indented under subclass 461. Subject matter wherein the ultrasonic system in the probe or associated means produces an output signal, which signals are presented in a sound made or a visual made as an image.

464 Having puncturing means thereon:
This subclass is indented under subclass 461. Subject matter wherein the probe has additional means thereon to pierce or perforate a particular body structure in the circulatory system.

SEE OR SEARCH THIS CLASS, SUBCLASS:
471, for cutters on a catheter.

465 Blood flow measurement:
This subclass is indented under subclass 461. Subject matter wherein means are provided to quantify or ascertain blood in the circulatory system.

466 Catheter:
This subclass is indented under subclass 461. Subject matter wherein the probe inserted into the body is a hollow, usually flexible, tube.

467 Intravascular:
This subclass is indented under subclass 466. Subject matter wherein the catheter is inserted into the circulatory system of the body.

468 With blood flow measurement or detection:
This subclass is indented under subclass 467. Subject matter wherein the catheter is used to quantify or ascertain blood in the circulatory system.

469 Detecting emboli:
This subclass is indented under subclass 468. Subject matter wherein the catheter is used to determine the presence of an occlusion in a portion of the circulatory system.

470 By inflatable balloon:
This subclass is indented under subclass 467. Subject matter wherein the intravascular catheter is a flexible material held on the catheter which is capable of expansion by the admission of a gas thereto.

471 Tool (e.g., ablation, abrasion, cutting):
This subclass is indented under subclass 466. Subject matter wherein the catheter carries or admits to the passage a means which removes an obstruction by either grinding, shearing, or other surgical removal from the circulatory system.

472 With beam directing or shaping means in the wave path (e.g., lens, reflector):
This subclass is indented under subclass 459. Subject matter wherein the transducer or probe assembly has additional means carried thereon which functions to direct or shape a beam generated by the wave generating means.

473 Infrared radiation:
This subclass is indented under subclass 407. Subject matter wherein the radiation is electromagnetic energy having wave lengths longer than those of visible light.

SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 330+ for infrared to visible imaging.

474 Temperature detection:
This subclass is indented under subclass 473. Subject matter including a device to measure the amount of heat of the tissue or a body part.

(1) Note. Included in this subclass is a meter to measure the exact temperature or the change in temperature of a tissue sample.

475 With comparison means (e.g., ratio of or comparison to a standard):
This subclass is indented under subclass 473. Subject matter including a device to contrast a measured parameter to a known parameter.

476 Visible light radiation:
This subclass is indented under subclass 407. Subject matter for detecting radiation wherein the electromagnetic energy is in the range detectable by the human eye.

SEE OR SEARCH THIS CLASS, SUBCLASS:
162, for body exploring devices provided with illuminating means.

SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 317.1+ for copying with infrared or thermal pattern recording, subclass 337 for invisible radiant energy responsive electric signalling with heating of luminophors, and subclasses 345+ for plural beam/ detector pairs.

477 With comparison means (e.g., ratio of or comparison to a standard):
This subclass is indented under subclass 476. Visible light radiation including a device to examine part of the electromagnetic spectrum.

478 Light conducting fiber inserted into a body:
This subclass is indented under subclass 476. Visible light radiation in which a clear glass or plastic filament guides electromagnetic radiation having a wavelength of about 3900 to 7500 angstrom units in vivo.

479 Cardiovascular testing:
This subclass is indented under subclass 476. Subject matter for evaluating the condition of a heart or blood vessels.

480 Pressure in blood vessel:
This subclass is indented under subclass 479. Subject matter for testing pressure in an artery, via a capillary.

481 Cardiovascular:
This subclass is indented under subclass 300. Subject matter for evaluating a condition of an artery, vein, or capillary.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 388+ for pressure gauges, per se.
346, Recorders, subclass 33 for recorders, per se.

482 Measuring resistance of capillary blood vessels to hemorrhage:
This subclass is indented under subclass 481. Subject matter for applying force against the body to determine the resistance of capillary blood vessels to hemorrhage.

483 Simultaneously detecting cardiovascular condition and diverse body condition:
This subclass is indented under subclass 481. Subject matter for simultaneously testing a cardiovascular condition and a different type of body condition.

484 Detecting respiratory condition:
This subclass is indented under subclass 483. Subject matter including means for evaluating a condition pertaining to or affecting respiration.

485 Measuring pressure in heart or blood vessel:
This subclass is indented under subclass 481. Subject matter for measuring pressure in an artery (usually an artery in the upper arm) or in

the organ responsible for circulation of blood in a body.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 388+ for pressure gauges, per se.
346, Recorders, subclass 33 for recorders.

486 Testing means inserted in body:
This subclass is indented under subclass 485. Subject matter wherein a testing means is placed in the body, usually in a blood vessel.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 118+ for indicating or regulating pressure in an injecting device.

487 Pressure indicator includes liquid column:
This subclass is indented under subclass 486. Subject matter wherein a pressure indicator including a column of fluid is connected to the testing means (e.g., a tube) placed in a blood vessel.

488 Pressure transducer structure:
This subclass is indented under subclass 486. Subject matter including structure of a pressure-responsive device which receives energy from one source and retransmits it on a different form when placed on the body.

(1) Note. A patent is classified as an original in this subclass only if it includes the recital of structural details of a pressure-responsive transducer as part of the claimed subject matter.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 388+ for fluid pressure gauges, per se.

489 Ophthalmodynamometer:
This subclass is indented under subclass 485. Subject matter including means for applying pressure against the eye to close the retinal artery.

(1) Note. As is well known, pressure applied to the surface of the eye affects pulsation of the retinal artery and can be correlated to pressure within the artery.

SEE OR SEARCH CLASS:
351, Optics: Eye Examining, Vision Testing and Correcting, subclasses 6+ for ophthalmoscopes and retinoscopes.

490 Force applied against skin to close blood vessel:
This subclass is indented under subclass 485. Subject matter wherein pressure is applied against skin overlying a blood vessel to close the latter.

(1) Note. As is well known, the pressure which must be applied to skin overlying an artery to stop blood flow (and the occurrence of Korotkoff sounds associated therewith) is recorded as the systolic pressure within the artery.

491 Hand-supported occluder:
This subclass is indented under subclass 490. Subject matter having manually supported means to apply pressure.

492 Tester having plural occluders, or single occluder and separate pressurized pulse sensing cuff or cushion:
This subclass is indented under subclass 490. Subject matter wherein (a) two separate means are used to apply force against skin overlying a blood vessel to close the latter or (b) a single means for applying such force is combined with a separate inflatable limb-encircling cuff or body-contacting cushion, the latter sensing pulsating flow within a blood vessel.

493 Electric signal generated by sensing means responsive to pulse or Korotkoff sounds:
This subclass is indented under subclass 490. Subject matter wherein a detecting means generates an electric signal in response to (a) pulsating flow of blood in the blood vessel or (b) Korotkoff sounds associated with such flow.

(1) Note. An electric signal of the type included in this subclass is usable for various purposes (e.g., to control an indicator, a recorder, or a means for pressurizing an occluding cuff).

494 Pulse-induced pressure fluctuation in occluder generates electric signal:
This subclass is indented under subclass 493. Subject matter wherein the electric signal is generated in response to pulse-induced pressure variation within a force applying means for closing a blood vessel.

(1) Note. Apparatus included in this subclass generally comprises a transducer capable of sensing the pressure increase which occurs within an inflatable arm band when flow of blood through an arm battery causes movement of skin overlying the artery and underlying the arm band.

495 Pressure in inflatable occluder automatically raised above systolic pressure:
This subclass is indented under subclass 493. Subject matter wherein pressure applied to an expandable means closes a blood vessel (e.g., an elastic, arm-encircling cuff), raising the systolic pressure in the blood-vessel without control by an operator.

(1) Note. In contrast with apparatus included in this subclass, a conventional sphygmomanometer has a bulb-type pump actuated by an operator to increase pressure in an inflatable arm band until Korotkoff sounds cannot be heard by means of a stethoscope. Apparatus included in this subclass generally includes Korotkoff sounds which cannot be heard by means of a stethoscope. Apparatus included in this subclass generally includes a Korotkoff sound or pulse detector which controls a means for pressurizing an inflatable arm band.

496 Repeating pressurization cycle:
This subclass is indented under subclass 495. Subject matter wherein pressure in the inflatable means is successively raised above and reduced below systolic pressure.

(1) Note. Apparatus included in this subclass is generally used to monitor a patient's blood pressure at regular intervals.

497 Pressure indicator includes liquid column:
This subclass is indented under subclass 490. Subject matter wherein a pressure indicator including a column of liquid is connected to a means for applying force against skin overlying a blood vessel (e.g., a liquid column manometer connected to a pneumatic arm-constricting cuff to measure pressure therein).

498 Valve structure:
This subclass is indented under subclass 490. Subject matter including structure of a device for controlling the force of a fluid used in the apparatus.

(1) Note. A patent is classified as an original in this subclass only if it includes the recital of structural details of a valve as part of the claimed subject matter.

499 Occluder structure:
This subclass is indented under subclass 490. Subject matter including structure of the pressure-applying means for closing a blood vessel.

(1) Note. A patent is classified as an original in this subclass only if it includes the recital of structural details of a blood vessel occluder as part of the claimed subject matter.

SEE OR SEARCH CLASS:
606, Surgery, subclass 203 for tourniquet structure, per se.

500 Detecting blood vessel pulsation:
This subclass is indented under subclass 481. Subject matter for detecting pulsation of a blood vessel induced by heartbeat.

501 Waveform graph-type pulse recorder:
This subclass is indented under subclass 500. Subject matter including means for recording blood vessel pulsation as a waveform graph.

SEE OR SEARCH CLASS:
346, Recorders, subclasses 111+ for writing-type recorders.

502 Pulse indicator:
This subclass is indented under subclass 500. Subject matter including means for indicating the throbbing of the blood vessel (e.g., an

alarm which operates when pulse rate reaches a certain level, a digital readout, or a dial and pointer indicator).

503 Entire testing assembly supported on wrist:
This subclass is indented under subclass 502. Subject matter wherein the entire assembly for testing blood vessel pulsation (i.e., the pulsation sensing means and the indicator operated thereby) is supported on that part of the lower part of a forearm joining a hand to the body.

504 Measuring blood flow in body portion other than heart:
This subclass is indented under subclass 481. Subject matter for measuring the flow of blood in any part of the body except the primary organ of blood circulation.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 861+ for volume and flow rate meters.

505 Sensing means inserted in blood vessel:
This subclass is indented under subclass 504. Subject matter wherein a flow sensing means is placed in an artery, vein, or capillary.

506 By detecting electrical impedance of body portion:
This subclass is indented under subclass 504. Subject matter including means for detecting the resistance of a body part to flow of electric current therethrough, this resistance being correlated to the amount of blood flowing through said part.

SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 600+ for impedance measuring not specifically for medical diagnosis.

507 By detecting volume of body portion:
This subclass is indented under subclass 504. Subject matter including means for detecting the capacity or amount of a body part, this capacity or amount being correlated to the amount of blood flowing through said part.

508 Heart:
This subclass is indented under subclass 481. Subject matter for evaluating a heart condition.

509 Detecting heartbeat electric signal:
This subclass is indented under subclass 508. Methods and apparatus for detecting changes in electrical potential of the heart during its beat.

510 Testing artificially regulated or assisted heart:
This subclass is indented under subclass 509. Subject matter wherein the heart is assisted or regulated by artificial means (e.g., a heart pacer) and a diagnostic test is included which obtains information for use by the diagnostician.

SEE OR SEARCH CLASS:
607, Surgery: Light, Thermal, and Electrical Application, subclasses 1+ for methods and apparatus for pacing the heart which may include diagnosis of the heart incident to the operation or control of the pacer.

511 Fetal heartbeat:
This subclass is indented under subclass 509. Subject matter for detecting the pulsation of a fetal heart.

512 Orthogonal heartbeat electric signals combined to form vector signal:
This subclass is indented under subclass 509. Subject matter wherein electric signals detected in orthogonal directions relative to the body are combined to form a signal having both magnitude and direction.

513 Detecting heartbeat electric signal and diverse cardiovascular characteristic:
This subclass is indented under subclass 509. Subject matter for detecting the heartbeat electric signal and a different characteristic of the cardiovascular system (e.g., heart sound).

514 Sound generated by successive heartbeat electric signals to represent heart action:
This subclass is indented under subclass 509. Subject matter including means for generating sound in response to successive heartbeat electric signals, a characteristic of the sound (e.g., volume, tone, repetition rate) representing the nature of the heartbeat (e.g., strong, weak, fast).

515 Detecting arrhythmia:
This subclass is indented under subclass 509. Subject matter for detecting a disturbance in the rhythm of the heart electric signal.

(1) Note. The shape of a normal heartbeat electric signal is illustrated below, segments of the waveform being designated by the letters which are used by cardiologists for their identification.

SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 76.12+ for complex wave analyzing apparatus, per se.

516 Variation in duration of segment of PQRST signal waveform (e.g., QRS complex, etc.) detected:
This subclass is indented under subclass 515. Subject matter including means for detecting a variation in the time which lapses during the generation of a particular portion of the PQRST waveform representing the heartbeat electric signal.

517 Vertical variation of PQRST signal waveform (e.g., amplitude of QRS complex, etc.) detected:
This subclass is indented under subclass 515. Subject matter including means for detecting a variation in the height of a particular portion of the PQRST waveform which represents the heartbeat electric signal, height being measured from the base line between positive and negative portions of the waveform.

518 Tachycardia or fibrillation detected:
This subclass is indented under subclass 515. Subject matter including means for detecting (a) an abnormal increase in repetition rate of the heartbeat electric signal which is not a result of increased exertion of the body (tachycardia) or (b) a fast and erratic heartbeat electric signal which results in cessation of the pumping action of the heart (fibrillation).

519 Detecting signal repetition rate:
This subclass is indented under subclass 509. Subject matter for detecting the repeat rate of the heartbeat electric signal.

520 Detecting means associated with exercise machine:
This subclass is indented under subclass 519. Subject matter wherein the signal detecting means is associated with a device for exercising the body.

521 Detecting R portion of signal waveform:
This subclass is indented under subclass 509. Subject matter including means for detecting the R portion of the heartbeat electric signal waveform.

SEE OR SEARCH THIS CLASS, SUBCLASS:
515, for R-wave detection circuitry in combination with circuitry for analyzing the heartbeat signal for an arrhythmia.

522 Switching means for activating different monitoring systems, signal displays, or signal recorders:
This subclass is indented under subclass 509. Subject matter including means for activating, by either manually operated or automatic switches, different patient monitoring systems, signal displays, or signal recorders.

523 Signal display or recording:
This subclass is indented under subclass 509. Subject matter for indicating or registering the heartbeat electric signal.

SEE OR SEARCH CLASS:
346, Recorders, subclass 33 for recorders.

524 Magnetic recording:
This subclass is indented under subclass 523. Subject matter wherein a record representative of a heartbeat electric signal is stored in a magnetic storage device (e.g., a magnetic tape or drum).

525 Cathode-ray tube used for display or included in recording means:
This subclass is indented under subclass 523. Subject matter including a cathode-ray tube which is used for either displaying the heartbeat electric signal or recording it (e.g., a cathode-ray tube combined with a camera).

526 Blood output per beat or time interval:
This subclass is indented under subclass 508. Subject matter for measuring the amount of blood flowing through the heart during a single heartbeat or a particular time interval.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 861+ for volume and flow rate meters.

527 Detecting heartbeat by sensing movement of oscillatable body-supporting means:
This subclass is indented under subclass 508. Subject matter wherein heartbeat is detected by sensing the motion which it imparts to a freely oscillatable means supporting the body.

528 Detecting heart sound:
This subclass is indented under subclass 508. Subject matter for detecting vibrations emanating from the heart.

SEE OR SEARCH CLASS:
181, Acoustics, subclass 131 for stethoscopes.
381, Electrical Audio Signal Processing Systems and Devices, subclass 67 for electric stethoscopes.

529 Respiratory:
This subclass is indented under subclass 300. Subject matter for evaluating a condition.

530 Halitosis detection:
This subclass is indented under subclass 529. Subject matter for detecting fetid breath.

531 Measuring metabolic rate by breath test:
This subclass is indented under subclass 529. Subject matter for measuring rate of metabolism by means of a breath test.

(1) Note. Included here as a "breath" type test of a metabolic rate is any procedure or apparatus which measures the rate of oxygen consumption of a living body (e.g., the body of an insect).

532 Qualitative or quantitative analysis of breath component:
This subclass is indented under subclass 529. Subject matter wherein the identity or amount of a particular component of the breath is determined.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 23.2+ for gas analysis processes and apparatus not involving a chemical reaction.
180, Motor Vehicles, subclass 99 for means responsive to incapacity (e.g., inebriation) of a vehicle operator.
436, Chemistry: Analytical and Immunological Testing, subclass 132 for ethanol tests.

533 Measuring respiratory flow impedance or lung elasticity:
This subclass is indented under subclass 529. Subject matter for measuring (a) the impedance of the respiratory system to gas flow or (b) lung elasticity.

534 Detecting body movement attending breathing:
This subclass is indented under subclass 529. Subject matter for detecting movement of the body which occurs during respiration.

535 Capacitor-type transducer:
This subclass is indented under subclass 534. Subject matter using a transducer of the capacitor type to detect body movement.

(1) Note. Included here are the following: (a) apparatus in which the body of a test subject rests on and, as a result of motion attending breathing, moves a sheet constituting one plate of a capacitor; (b) apparatus in which the body surface of a test subject forms one plate of a capacitor; and (c) apparatus in which movement of a test subject varies fluid pressure applied to one plate of a capacitor.

SEE OR SEARCH CLASS:
361, Electricity: Electrical Systems and Devices, subclasses 271+ for capacitors, per se.

536 Detector responsive to movement induced variation in impedance of body to electric current:
This subclass is indented under subclass 534. Subject matter using a detector responsive to the variation in impedance of the body to flow of an electrical current which results from movement of the body.

SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 600+ for impedance measuring not specifically for medical diagnosis.

537 Thermistor-type transducer generating electric signal in response to breath flow:
This subclass is indented under subclass 529. Subject matter wherein an electric signal is generated by breath flow past a transducer consisting of a resistor made of a material which has a resistance which varies sharply with a change in temperature.

538 Measuring breath flow or lung capacity:
This subclass is indented under subclass 529. Subject matter for measuring the amount of gas which (a) flows along the respiratory tract during breathing or (b) is held by the lungs.

SEE OR SEARCH CLASS:
33, Geometrical Instruments, particularly subclasses 512+ for devices for measuring chest circumference and incidentally determining chest expansion.
73, Measuring and Testing, subclasses 861+ for volume or flow rate meters.
482, Exercise Devices, particularly subclass 13 for an exercise device for improving the respiratory function of a user but which does not include a quantitative indicator of breath flow or lung capacity and which is not disclosed as a Class 128 diagnostic device.

539 Element rotated by breath flow:
This subclass is indented under subclass 538. Subject matter wherein breath flow is measured by means of a rotatable element against which breath is impinged.

540 Breath exhaled into or inhaled from expansible chamber:
This subclass is indented under subclass 538. Subject matter wherein breath flow or lung capacity is measured by breathing gas into or from an expansible chamber.

SEE OR SEARCH CLASS:
92, Expansible Chamber Devices, subclasses 34+ for a bellows-type expansible chamber.

541 Bellows or expansible bag:
This subclass is indented under subclass 540. Subject matter wherein the expansible chamber is a bellows or expansible bag.

542 Liquid surface forms portion of chamber boundary:
This subclass is indented under subclass 540. Subject matter wherein a portion of the boundary of the expansible chamber is defined by a liquid surface, as in an expansible chamber formed by an inverted cup having its side wall immersed in a liquid.

543 Breath collection:
This subclass is indented under subclass 529. Subject matter for collecting exhaled gas.

544 Detecting brain electric signal:
This subclass is indented under subclass 300. Subject matter for detecting changes in electrical potential (electric signal) of the brain.

545 With feedback of signal to patient:
This subclass is indented under subclass 544. Subject matter wherein the detected signal, or an output responsive thereto, is presented to the patient.

(1) Note. Included in this subclass are means, referred to in the art as "biofeedback" apparatus, for enabling a patient to perceive, for example, his or her level or state of brain activity.

546 Detecting muscle electric signal:
This subclass is indented under subclass 300. Subject matter for detecting changes in electrical potential (electric signal) of a muscle.

SEE OR SEARCH THIS CLASS, SUBCLASS:
509+, for detecting electric signals of the heart muscle.

547 Measuring electrical impedance or conductance of body portion:
This subclass is indented under subclass 300. Subject matter for measuring (a) the impedance of any part of the body to flow of electric current therethrough or (b) the readiness with which any part of the body transmits an electric current.

SEE OR SEARCH THIS CLASS, SUBCLASS:
506, for methods and apparatus for measuring blood flow by measuring body electrical impedance.
536, for methods and apparatus for detecting breathing by measuring body electrical impedance.

SEE OR SEARCH CLASS:
324, Electricity: Measuring and Testing, subclasses 600+ for impedance measuring not specifically for medical diagnosis.

548 Locating acupuncture points:
This subclass is indented under subclass 547. Subject matter for locating the points on the body where acupuncture procedures are performed.

549 Temperature detection:
This subclass is indented under subclass 300. Subject matter for evaluating a body condition by detecting the temperature of either an exterior or interior portion of the body.

(1) Note. A patent is classified as an original in this subclass only if it discloses a temperature detecting means or method specifically adapted for use on or in the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
473, for methods and apparatus for detecting infrared radiation emanating from the body.

SEE OR SEARCH CLASS:
250, Radiant Energy, subclasses 330+ for infrared-to-visible imaging.
374, Thermal Measuring and Testing, subclasses 100+ for temperature measuring means or methods having general utility, including conventional clinical thermometers which because of their structure can also be used for temperature measurement in general.

550 Detecting foreign object or calculus by probing:
This subclass is indented under subclass 300. Subject matter including means insertable in the body for locating a foreign object such as a bullet or gallstone.

SEE OR SEARCH THIS CLASS, SUBCLASS:
420, for electronic apparatus for detecting material in the body.

551 Monitoring fertility cycle:
This subclass is indented under subclass 300. Subject matter for monitoring the recurring female fertility cycle of a placental mammal.

552 Sensitivity to vibration:
This subclass is indented under subclass 300. Subject matter for detecting response of the body to a vibratory force applied thereto.

553 Sensitivity to impact:
This subclass is indented under subclass 300. Subject matter for detecting response of the body when struck by an object.

554 Sensitivity to electric stimulus:
This subclass is indented under subclass 300. Subject matter wherein the body is contacted by a source of electrical potential to test its sensitivity thereto.

555 Sensitivity to thermal stimulus:
This subclass is indented under subclass 300. Subject matter wherein the body is subjected to heat or cold to test its sensitivity thereto.

556 Sensitivity of skin to allergens or radiation:
This subclass is indented under subclass 300. Subject matter for evaluating the sensitivity of the skin to a substance or radiation which can

produce a different reaction in different subjects.

557 Touch or pain response of skin:
This subclass is indented under subclass 300. Subject matter for evaluating (a) the neurological sense of touch by contacting an object with the body or (b) the sensitivity of the skin to pain, such as is induced by pressing a needle against the skin.

558 Eye or testing by visual stimulus:
This subclass is indented under subclass 300. Subject matter for evaluating a physical characteristic of the visual system or testing a reaction to visual stimulus.

SEE OR SEARCH THIS CLASS, SUBCLASS:
398, for apparatus for determining pressure in an eyeball.
544+, for apparatus which detects an electric signal of the brain resulting from visual stimulus.

SEE OR SEARCH CLASS:
351, Optics: Eye Examining, Vision Testing and Correcting, subclasses 6+ for ophthalmoscopes and retinoscopes.

559 Ear or testing by auditory stimulus:
This subclass is indented under subclass 300. Subject matter for evaluating a physical characteristic of the auditory or equilibrium control system or testing a reaction to sound stimulus.

SEE OR SEARCH THIS CLASS, SUBCLASS:
544+, for apparatus which detects an electric signal of the brain resulting from sound stimulus.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclass 585 for audiometers for testing hearing.

560 Injecting gas into body canal or cavity:
This subclass is indented under subclass 300. Subject matter for forcing gas into a canal or cavity of the body (e.g., injecting air into the lower intestinal tract to determine whether it has a constriction in the wall thereof).

561 Measuring fluid pressure in body:
This subclass is indented under subclass 300. Subject matter for measuring fluid pressure in a part of the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
485+, for methods and apparatus for measuring pressure in the heart or a blood vessel.

SEE OR SEARCH CLASS:
73, Measuring and Testing, subclasses 700+ for pressure gauges, per se.
346, Recorders, subclass 33 for recorders.

562 Sampling nonliquid body material (e.g., bone, muscle tissue, epithelial cells, etc.):
This subclass is indented under subclass 300. Subject matter for removing material other than a liquid from the body for examination.

SEE OR SEARCH CLASS:
435, Chemistry: Molecular Biology and Microbiology, subclasses 4+ for sampling with fermentation means (e.g., culture medium).

563 Irrigation:
This subclass is indented under subclass 562. Subject matter wherein a liquid is applied to the body to wash material therefrom.

564 Cutting:
This subclass is indented under subclass 562. Subject matter wherein a cutting edge is forced into body structure to remove material therefrom.

(1) Note. Scrapers which are moved across a surface of the body and are not intended to cut into body tissue are not classified in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:
570, for scrapers which are moved across a surface of the body to remove material therefrom.

SEE OR SEARCH CLASS:
30, Cutlery, subclasses 165+ for cutting implements.

83, Cutting, subclasses 13+ for cutting methods and subclasses 861+ for apparatus.
606, Surgery, subclasses 167+ for various cutting instruments.

565 Applying suction to sample:
This subclass is indented under subclass 564. Subject matter wherein suction is applied to a portion of the body to (a) draw it into a convenient position for cutting or (b) remove it from the cutting site for retrieval.

566 Body pierced by tubular cutter or rod-type punch:
This subclass is indented under subclass 565. Subject matter wherein the body is pierced either by a tubular cutting means or by a separate means such as a pointed rod.

567 Body pierced by tubular cutter or rod-type punch:
This subclass is indented under subclass 564. Subject matter wherein the body is pierced either by a tubular cutting means or by a separate means such as a pointed rod.

568 Motorized:
This subclass is indented under subclass 564. Subject matter wherein the cutting edge is moved by a motor.

569 Brushing:
This subclass is indented under subclass 562. Subject matter wherein bristles of a brush are used to remove the material.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 1+ for swabs used on the body.

570 Scraping with edged instrument:
This subclass is indented under subclass 562. Subject matter wherein an edged instrument is moved across a surface of the body to remove material therefrom.

SEE OR SEARCH CLASS:
30, Cutlery, subclasses 169+ for scrapers having general utility.

571 Applying suction to sample:
This subclass is indented under subclass 570. Subject matter wherein suction is applied to the material, usually to draw it to a retrieval site.

SEE OR SEARCH THIS CLASS, SUBCLASS:
565, for methods and apparatus wherein suction is applied to a sample cut from the body.

572 Wiping or dabbing:
This subclass is indented under subclass 562. Subject matter wherein a wiping implement (e.g., a smooth paddle, cloth, sponge, or cotton-tipped swab) is moved across, or touched to, a surface to remove material therefrom.

573 Liquid collection:
This subclass is indented under subclass 300. Subject matter for collecting a liquid from the body.

SEE OR SEARCH CLASS:
4, Baths, Closets, Sinks, and Spittoons, subclasses 144.1+ for a urinal which is not disclosed for use in collecting a specimen for a diagnostic purpose.
206, Special Receptacle or Package, subclasses 364+ for receptacles for holding syringes for drawing liquid from the body.
435, Chemistry: Molecular Biology and Microbiology, subclasses 4+ for liquid collection with fermentation.
604, Surgery, subclasses 317+ for collecting waste fluid from the body for non-sampling purposes.

574 Means specifically structured for collecting urine of human female:
This subclass is indented under subclass 573. Subject matter including means specifically formed for collecting urine of a human female.

SEE OR SEARCH CLASS:
4, Baths, Closets, Sinks, and Spittoons, particularly subclasses 144.1+ for a urinal which is intended for the convenience of the user and not disclosed for collecting a specimen for a diagnostic purpose nor attached to or worn on the body. A urinal which contacts,

conforms to, or penetrates the body (e.g., a device permitting a female to urinate while standing up) is included, provided it is for the convenience of the user.

604, Surgery, subclasses 327+ for a device for collecting a bodily discharge and which is (a) attached to or worn on the body for any reason, including for the convenience of the user; or (b) used to receive the urinary discharge from a patient suffering from a urinary control ailment (e.g., incontinence). An unclaimed article of clothing (e.g., underpants) may be used to attach the device to the body of the user. See subclass 329, in particular, for a device structured for collecting urine from a human female.

575 Plural collection means (e.g., plural reservoirs or plural absorbent pads, etc.):
This subclass is indented under subclass 573. Subject matter including plural means for collecting liquid.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 358+ for absorbent pads.

576 Manually supported collector with rigid intake tube (e.g., a hollow needle, etc.):
This subclass is indented under subclass 573. Subject matter using a collector supported by hand and provided with a rigid intake tube.

577 Penetrable seal in liquid flow path to collection reservoir:
This subclass is indented under subclass 576. Subject matter wherein a penetrable seal is disposed in the flow path of liquid to a collection reservoir.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 201+ for penetrable seal in liquid flow path.

578 Mechanical means for drawing liquid into collection reservoir:
This subclass is indented under subclass 576. Subject matter including a mechanical means (e.g., a plunger or bulb-type pump) for drawing liquid into a collection reservoir.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 187+ for piston and squeeze bulb-type syringe.

579 Means for controlling liquid flow:
This subclass is indented under subclass 576. Subject matter including a valve between the intake tube and a collection reservoir.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 236+ for syringe bulb valve structure.

580 Wall of collection reservoir formed of flexible material:
This subclass is indented under subclass 573. Subject matter including a collection reservoir having a wall formed of flexible material.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 327+ for flexible wall or bag-type syringes.

581 Flexible collection tube inserted in body:
This subclass is indented under subclass 573. Subject matter wherein a flexible tube is inserted in the body to collect liquid.

582 Collection receptacle placed within body:
This subclass is indented under subclass 573. Subject matter wherein a receptacle is inserted or ingested within the body to collect liquid.

SEE OR SEARCH CLASS:
604, Surgery, subclasses 328+ for fluid collectors placed in the body.

583 Collector combined with lancet:
This subclass is indented under subclass 573. Subject matter wherein a collector is combined with a sharp edge or point for piercing the skin to draw blood.

584 Indicator:
This subclass is indented under subclass 573. Subject matter including means for providing information about the collected liquid or collection means therefor (e.g., a volume indicator).

SEE OR SEARCH CLASS:
604, Surgery, subclass 318 for container with condition indicator.

585 Flexible catheter guide:
This subclass is indented under subclass 300. Methods and apparatus using a flexible means for guiding a catheter during its insertion into a body passage (e.g., a tube which can be made to assume different shapes after it has been inserted into the body and which receives a catheter tube).

586 Detecting sound generated within body:
This subclass is indented under subclass 300. Subject matter for detecting a sound generated within the body.

SEE OR SEARCH THIS CLASS, SUBCLASS:
528, for methods and apparatus for detecting heart sound.

587 Measuring anatomical characteristic or force applied to or exerted by body:
This subclass is indented under subclass 300. Subject matter for measuring an anatomical characteristic (e.g., the size, shape, or motility of a body part) or the amount of force applied to or exerted by a portion of the body.

SEE OR SEARCH CLASS:
33, Geometrical Instruments, subclasses 511+ for anatomical gauges.

588 Associated with parturition:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to birth (e.g., means for measuring the magnitude of muscular contractions in the abdominal wall during labor).

589 Gum:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to support tissue for teeth.

590 Mouth, tongue, or jaw:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to the mouth, tongue, or jaw.

591 Vagina or uterus:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to the natural body orifice leading to the organ of gestation in a female or the organ of gestation.

592 Foot:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to a foot characteristic.

593 Esophagus, stomach, or lower alimentary canal:
This subclass is indented under subclass 587. Subject matter for making a measurement of a portion of the body for the passage of food from a pharynx to an organ of digestion or the lower portion of the organ of digestion or absorption of the body.

594 Spine:
This subclass is indented under subclass 587. Subject matter for making a measurement relating to the spine.

SEE OR SEARCH THIS CLASS, SUBCLASS:
549, for methods and apparatus for detecting an abnormality in the spine by use of temperature measuring means.

595 Body movement (e.g., head or hand tremor, motility of limb, etc.):
This subclass is indented under subclass 587. Subject matter for measuring movement of either the entire body or a portion thereof.

CROSS-REFERENCE ART COLLECTIONS

920 METHOD OF MAKING ENDOSCOPES:
This subclass is indented under the class definition. Subject matter comprising a collection of cross reference patents for the process of manufacturing or assembling the components of an endoscope.

921 MANIPULATING IMAGE CHARACTERISTICS:
This subclass is indented under the class definition. Subject matter comprising a collection of cross reference patents for the manipulating of endoscope images characteristics.

END